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THE IMPACT OF PRIVATIZATION AND POLICY REFORM ON THE COTTON SPINNING INDUSTRY IN EGYPT

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LIST OF ACRONYMS

AC	Affiliated company (within a holding company)
ALCOTEXA	Alexandria Cotton Exporters Association
APCP	Agriculture Production and Credit Project
APRP	Agricultural Policy Reform Program
C&F	Cost and freight (no insurance included)
CALCOT	California Cotton Cooperative
CIF	Cost, insurance and freight
CIT HC	Cotton and International Trade Holding Company
CRI	Cotton Research Institute (of ARC)
CSPP	Cotton Sector Promotion Program (GTZ-funded)
ELS	Extra Long-Staple
ETMF	Egyptian Textile Manufacturers' Federation
EU	European Union
fd.	Feddan (equivalent to 0.420 hectares or 1.037 acres)
FOB	Free on board
GATT	General Agreement on Tariffs and Trade
GOE	Government of Egypt
GTZ	Deutsche Gesellschaft Fur Technische Zusammenarbeit
HC	Holding Company
IPM	Integrated Pest Management
IPO	Initial public offering (of a company on the stock market)
kg.	Kilogram
lk	Lint kentar
LE	Egyptian Pound (equivalent to $.287 in mid-2000)
LS	Long-Staple
MALR	Ministry of Agriculture and Land Reclamation
MEFT	Ministry of Economy and Foreign Trade
MLS	Medium Long-Staple
MPE	Ministry of Public Enterprise
mt	Metric Ton
MVE	Monitoring, Verification, and Evaluation Unit of APRP
PBDAC	Principal Bank for Development and Agricultural Credit
PEO	Private Enterprise Office (of MPE)
RDI	Reform Design and Implementation Unit of APRP
S&W	Spinning and Weaving (refers to a company name, as in Giza S & W)
sk	Seed Kentar
SWRMC-HC	Holding Company for Spinning, Weaving and Ready Made Clothes
TCF	Textile Consolidation Fund
TMT-HC	Textile Manufacturing and Trade Holding Company
UR-GATT	Uruguay Round, General Agreement for Tariffs and Trade
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

PREFACE

This report is one of a series of MVE Impact Assessment reports designed to describe and analyze the impact of the USAID-funded Agricultural Policy Reform Program (APRP), and its predecessor project APCP, on the agribusiness system in Egypt. The study grew out of MVE Unit efforts to verify a Tranche III policy benchmark on private sector job creation in the ginning and spinning industries. MVE learned that there were more private sector spinners in Egypt than had been thought. The report addresses many issues related to the operations and performance of private spinners, using original empirical findings of a survey of private spinners.

Readers should note that the ***source of data reported in the tables in the report is the MVE survey of private spinning companies***, conducted in May 1999 and November-December 1999, ***unless otherwise noted.*** Some data on lint cotton sales by private traders to private, joint investment, and public spinners, reported in Chapter 3, were obtained from the Cotton and International Trade Holding Company.

As a general caveat and disclaimer, MVE wishes to note that any of the data presented in this report should be considered close approximations rather than precise and definitive. Any analysis of an agro-industry in Egypt or a commodity subsector reveals inconsistencies and anomalies in data–both in secondary data whose methods of collection are not always clear, well-articulated, or perhaps consistent across years, and in primary data collected from informants who are not often willing to provide precise, quantitative data about their business activities. While private businessmen in Egypt clearly have a strong sense of the bottom line in their businesses, they rarely record or can recall (especially over longer recall periods) costs and returns in a detailed, consistent fashion that would suit an accountant or an economist. Some firms may also be hesitant to reveal detailed information about costs and returns, fearing adverse tax consequences or other governmental interference. Despite these potential problems in firm-level data, MVE is confident that the following report presents a reasonably accurate and comprehensive picture of the state of the private sector spinning industry in 1999.

ACKNOWLEDGMENTS

As with all MVE reports, this paper represents a team effort. In order to gather data to verify a Tranche III benchmark, the MVE unit designed a questionnaire that included questions about employment (the focus of the benchmark), as well as other topics and policy-related issues of general interest to MVE's impact assessment program.

The questionnaires were administered by Nabil Sentreicy in Alexandria, Borg El Arab and Fowah, and by Ezz El Din Abdel Kader in Fowah and the other locations. John Holtzman and Adel Mostafa developed the questionnaire. Adel Mostafa pre-tested it and also carried out a good number of structured informal interviews that went beyond the questionnaire to probe key problem areas, policy issues, and spinner perceptions of potential opportunities and pitfalls.

Flora Kaddies entered the survey data, Sherif Fayyad did much of data processing, and Dalia Radwan created most of the tables in the report. Gary Ender provided input and guidance at all stages of the process. Finally, APRP colleagues such as Ken Swanberg, Edgar Ariza-Nino, Ron Krenz, and CSPP colleagues Helmut Schoen, Heinz Burgstaller, and Mohamed Abou El Wafa have stimulated and challenged us to do better work than we could ever have done without their counsel. El-Sayed Dahmoush provided a critical review of the final draft that was also helpful.

All errors and omissions in the report are the responsibility of the authors and should not be attributed to the GOE (MALR), USAID, Abt Associates or EQI.

EXECUTIVE SUMMARY

The spinning industry was almost entirely dominated by public sector companies until 1996/97, at which point privatization got underway and private investments were made in spinning companies, particularly open-end spinners. The last four years have witnessed changes which are evidence that the MPE privatization program, policy reforms affecting cotton marketing and trade, and overall economic liberalization in Egypt are having a positive impact on the spinning industry in Egypt.

As in many parts of the world, the initial steps in liberalization of the cotton subsector and textile industry did not have an immediate impact. Private investors wait a few years until it has become clear that policy reforms are irreversible, there is evidence that the Government is serious about privatization, and the overall business climate encourages private investment. By the end of the 1999/2000 cotton marketing season, there was sufficient progress on these fronts that private investors had entered and were transforming the domestic trade in seed cotton, the ginning industry, domestic and export trade in lint cotton, and cotton spinning. Driven largely by policy reform, these positive changes also responded to domestic and world market trends and conditions for cotton, yarn and textiles.

The major changes in the Egyptian spinning industry over the past four years were as follows:

- Three public spinners (Unirab, Alexandria S&W, ESCO) had become successful privatized spinners, buying 23.5% of the Egyptian lint purchased by all domestic spinners in 1998/99 and 27.7% in 1999/2000 as of 30 June 2000. These companies are spinning better quality yarn than most of the public sector spinning companies, generally medium-count, which has a ready market either domestically or overseas. Two of these companies appear to have achieved higher productivity than before privatization.

- Three spinning units of the Sharkeya Spinning and Weaving Company at Minya el Kamh were leased to private investors. This leased spinning operation did spinning under contract to two companies located in the Tenth of Ramadan.

- One new private ring spinning company came on stream in Sadat City in 1999 (Alcan Manai), which is allied with an Italian partner.

- Three private companies, two in the Tenth of Ramadan, are specializing in twisting of yarn, an operation that follows ring spinning. Perhaps one of these companies will consider expanding into ring spinning.

- Nine companies have started open-end spinning since 1997, making 13 entirely private (not privatized) open-end spinning investments in Egypt. Eight of these companies are using Giza 80 and 83 exclusively or largely as their raw material, which is remarkable given the high cost of this Egyptian lint cotton relative to the cost of waste and cheaper imported lint (which they did not use in 1998/99). While this can be seen as a vote of confidence for the GOE's policy of promoting cultivation of Gizas 80 and 83 in Upper Egypt, the open-end spinners also note that easier importation of cheaper short and medium-staple cotton lint or domestic cultivation of

short-staple cotton would lower their production costs significantly.

- In 1999/2000, 29 percent of the Egyptian cotton lint sold to domestic spinners was sold to private firms. If the two joint investment companies (Miratex and Misr Amriya) are considered as private sector firms, this percentage rises to 43.7% (as of 30 June 2000). This is partly due to increasing unutilized capacity in public spinning mills.

Some planned future developments include the following:

- One of the most progressive private open-end spinners in Egypt is adding production lines to do ring spinning, beginning in 2001. It is also reported that a major Egyptian cotton trading company is considering establishing a joint venture ring spinning mill near Alexandria. These tentative first steps in making investments in more technically challenging and potentially remunerative ring spinning of medium-to high-count yarn indicate that the private sector is considering replacing at least some idled public sector capacity. The demise of public ring spinners represents an opportunity for private investors willing to take calculated risks.

- MVE obtained a list of investors who plan to do spinning, weaving, knitting and RMC production in El Obour City. The list includes 17 planned spinning investments of a total of 23 companies (most of whom will do more than one operation).

- Opinions diverge over what GOE policy should be regarding importation of shorter-staple cotton. Privatized and open-end spinners would like to see Egyptian lint, particularly LS and MLS varieties, made available more cheaply. Others note that importation of shorter-staple, cheaper foreign lint should be made easier for those spinners intending to spin low-count yarn. Open-end spinners also support cultivation of short-staple cotton varieties in Egypt to meet their demand for cheaper lint.

- The future of the GOE's privatization program for the numerous remaining public sector spinning companies is uncertain. Privatization stalled in 1998/99 and 1999/2000. Leases were signed with private operators to run three spinning units in Minya El Kamh and one at Al Alameya, but there was no transfer of ownership. Efforts to privatize Shebin El Kom and STIA, two well-regarded public spinners of medium and some high counts, were unsuccessful. In the meantime, yarn and other textile inventories mounted and many public companies were forced to operate well below capacity. MPE and the SWRMC Holding Company need to make strategic decisions about preparing public companies for privatization. Clearly, some public spinners can and should be privatized. These companies require some restructuring, labor force reduction, and debt resolution, after which they represent reasonably attractive investment or leasing opportunities. The difficulty lies in deciding what to do about the most highly indebted, overstaffed, and poorly performing companies, which are operating at low rates of capacity utilization. Is some form of triage required to concentrate limited resources for restructuring public spinners on the companies with the best medium- to long-run prospects of surviving?

- The involvement of foreign partners may be necessary to increase investment in ring spinning. Such investments are costly, and ring spinning requires technical know-how and market access.

Domestic and partner foreign investors will likely be hesitant to invest in the troubled Egyptian spinning industry, where there is excess capacity, so this will lead to a rather slow increase in private ring spinning capacity. The future status of the more competitive public sector spinning companies who do ring spinning–Shebin El Kom, STIA and Misr Mehalla–is uncertain and will affect private investors' decisions. Nonetheless, increased private sector capacity in ring spinning for export is where many see the future of Egypt's spinning industry moving.

In order to promote private investment in the spinning industry, the GOE needs to do the following:

- Promote leasing and management contracts of potentially better performing spinning units of public sector companies to qualified foreign investors or joint foreign-domestic partners. Note that APRP/RDI is working with the MPE and the textile holding companies to do this.

- Resolve the redundant labor problem in public companies, such as Shebin El Kom and STIA, that would otherwise be attractive privatization buying or leasing opportunities for private investors.

- Reduce MPE expectations of getting offer prices that fully cover high GOE valuations of public companies ready for privatization in order to facilitate private investment. This can be most directly accomplished through preparing reasonable valuations for the land and other assets. As in the case of public sector ginning companies, reducing land valuations (and asking prices) needs to be accompanied by promises that private buyers intend to invest any proceeds from land sales in the spinning industry, preferably in upgrading those privatized plants that can be rehabilitated.

- Facilitate importation of shorter-staple lint cotton from countries such as Syria, Greece, and the Southeastern U.S. Egyptian spinners are facing very tight supply conditions in 2000/01, given reduced planting of seed cotton and a small harvest. Uncertainty regarding the importation of lint cotton and private spinners' access to imported lint (particularly lint imported by the Holding Company) will likely constrain the operating levels and output of private spinners in 2000/01. Not resolving this issue in the short run could stall further private investment and undercut privatization efforts. Egyptian lint is costly raw material for open-end spinning and ring spinning of low to medium counts of yarn.

Related to this last point, the MALR/CAPQ is advised to provide clear guidelines for assessing phytosanitary risks associated with lint imports from selected cotton-producing countries, disseminate these guidelines widely to prospective importers, and certify selected producing regions as being very low risk or risk-free. This is an important step in the unfinished agenda of providing prospective importers of foreign lint cotton with transparent and consistently applied phytosanitary regulations.

While the cotton/textile subsector policy reform agenda is still far from complete, private investments in spinning since 1994/95 are encouraging. The improved performance of the privatized spinning companies, particularly Alexandria Spinning and Weaving and DIP Egypt, offers hope for further privatizations, provided that current barriers to further privatizations can be overcome. High sales taxes on domestically sold yarn and high tariffs and sales taxes on imported textile machinery also need to be lowered to improve the competitiveness of the Egyptian spinning industry.

1. INTRODUCTION: WHY SURVEY PRIVATE SPINNERS IN EGYPT?

In April-May 1999, MVE surveyed a sample of private spinners in Fowah District of Kafr El Sheikh (12 of an estimated 120 firms), as well as the entire population of privatized spinning companies and new private spinners that the Unit could identify. The initial impetus for this survey was to determine if Policy Benchmark B3 of Tranche III of APRP had been accomplished. This benchmark concerned the creation of new private sector jobs, whereby

> "The GOE will take measures to improve the enabling environment for private investment in the cotton textile sector so as to ensure that at least two thousand new private sector jobs are created by private enterprises engaged in cotton ginning and spinning."

MVE judged that the benchmark had been accomplished between May 1998 and May 1999, with 619 new jobs created in the ginning industry, 874 jobs in new private spinning companies, and 972 jobs in the traditional spinning industry in Fowah (see MVE Unit Verification Report, 1999).

MVE used the opportunity to survey private spinners to learn more about their enterprises and whether the creation of new private sector spinning firms had been a response to liberalization of the cotton/textile subsector. The survey covered, among other topics, the following:

- year private spinner established and its physical plant (factories, no./type of spindles, etc.)
- legal/corporate status of the company
- raw material (cotton lint) procurement, sources/types, prices paid, and uses
- company employment at several points in time, disaggregated by worker type
- product mix and markets, especially vis-a-vis the public sector spinning companies
- employment and wages by major job category
- future plans to expand operations and hire new workers

After conducting the first round of surveys in May 1999, MVE learned that it had not enumerated five additional private spinners, which were interviewed in November and December 1999. Giza Spinning and Weaving, one of the original private sector spinners, was also interviewed in December 1999, as were the managers of Minya El Kamh and Al Alamia, two leased (privatized) companies.

1.1 The Conventional Wisdom

When APRP began in 1996/97, the conventional wisdom was that there was only one private sector spinner of cotton, Giza Spinning and Weaving Company, which was established in 1989. This was actually the case for ring spinners. Note, however, that three other companies that do twisting, an operation following ring spinning, had been created by 1994, as noted below:

- 10th of Ramadan Spinning and Weaving Company, 10th of Ramadan, 1984
- Abdel Mona'em Mohammed Dawidar, Dakhalia, 1988
- Al Maidani Spinning and Weaving Company, 10th of Ramadan, 1994

Five open-end spinners, surveyed by MVE, also were established before cotton/textile subsector liberalization began (see Annex Table A1-1). Three of these companies spin only waste, one spins waste and Giza 80/83, and another spins only Giza 80/83. The spinning of waste is a niche spinning activity that open-end spinners have done in response to public sector dominance of the ring spinning industry in the past.

1.2 Recent Expansion in Private Sector Investment in Spinning

The largest "new" private sector spinners are privatized former public sector companies or units of such companies, including Unirab Spinning and Weaving, Alexandria Spinning and Weaving, DIP Egypt, and Minya El Kamh. As for privately established spinners, open-end spinning companies predominate. There is only one new ring spinner, created as a joint venture with a foreign concern in late 1998. Hence, *the overall picture is still one of modest new private investment in spinning, particularly more technically demanding ring spinning,* which can use Egypt's high quality lint cotton input to produce higher count yarns.

Nevertheless, there are positive signs for the future, especially as public spinning companies are facing a series of competitive threats:

- stiff competition in the international marketplace;
- an overvalued currency (that penalizes exports);
- leakage of textile products, woven or knit from cheap foreign yarn supposedly reserved for exported fabric, knits and RMGs, into the domestic market; and
- an overall soft domestic market for textile products.

In addition, the public sector companies have aging and not always well-maintained equipment, as well as large labor forces that can only be downsized at very high cost (through employee early retirement or buy-out programs). These factors, coupled with high valuations of public companies slated for privatization, offer a disincentive to further privatization. Prospective private investors may prefer to put their money in new ventures with equipment and labor of their choosing.

1.3 Has There Been a Private Sector Response to Liberalization and Privatization?

An important objective of the MVE survey and this paper is to attempt to answer this question. More fundamentally, *did policies decreed and implemented by the GOE, beginning in 1994/95, where the USAID-funded APCP* (Agricultural Policy and Credit Program, 1987-1995) *played a catalytic role, make a significant difference in the enabling environment, which in turn stimulated private investment in spinning?*

Liberalization of seed cotton marketing, through three laws in 1994 and a series of policy benchmarks achieved under the Agricultural Production and Credit Project and APRP during the 1990s (see Holtzman, *Liberalization and Privatization of Key Subsectors in Egypt's Agricultural Economy: Progress & Challenges,* 2000), have opened the way for more private sector involvement in seed cotton buying, ginning (see Krenz and Mostafa, 2000a), and export. By 1999/2000, the private sector

shares were 44% in seed cotton buying (see Krenz and Mostafa, 2000b), 37% in ginning (nearly 40% in 1998/99), and 17% of cotton exports (26% in 1998/99). This progress in liberalization and privatization (of two public ginning companies) would create further opportunities to liberalize and privatize the cotton subsector and the textile industry.

While the weaving and RMG industries were dominated by the private sector by 1996/97, driven by the temporary admission system on cheap imported yarn, *the spinning industry did remain largely state dominated during the 1990s*. The public sector share did slip, however, from 92.6% in 1991/92 to an estimated 69.2% share by 1998/99 (see Ender et al., 1999). Part of this was due to the 26.7% decline in public sector yarn output from a four-year average of 274,161 mt from 1991/92 to 1994/95 to 200,109 mt in 1997/98 and 201,959 mt in 1998/99. The private sector output did rise over fourfold, however, from an estimated 20,214 mt in 1990/91 to 89,951 mt in 1998/99. The estimated private share rose from 14.5% in 1994/95, the first year of liberalized seed cotton marketing, to an estimated 30.8% by 1998/99. The absolute volume of private sector yarn output nearly doubled over this period from 45,794 mt to 89,951 mt in 1998/99.

The policy benchmarks that had a more direct effect on private investment in spinning were as follows:

- one benchmark in Tranche I focused on phasing out lint allocation quotas and fixed prices to spinning mills;
- 7 benchmarks in Tranches I-III focused on pre-privatization assistance[1] to the textile industry;
- 4 benchmarks in Tranches I-III focused on privatization of the textile industry, particularly public sector spinning mills;
- 3 benchmarks on yarn import tariffs; and,
- 2 benchmarks on removing minimum export pricing.

While not all these benchmarks were fully and satisfactorily achieved, enough was accomplished to move liberalization of the textile industry ahead a few steps. Perhaps more importantly, the public sector textile companies faced increasing competitive pressure from world markets and the resurgent domestic private weaving, knitting and RMG industries, which used a lot of cheaper imported low-count yarn (spun from short-staple cotton lint) under the temporary admission system. As public companies began to stumble, they closed production lines and in some cases entire spinning mills, with a consequent decline in capacity utilization and yarn output. This created opportunities for domestic spinners who wished to supply domestic weavers and knitters, particularly for spinners who spin waste and cheaper Egyptian lint cotton (Gizas 80 and 83).

The survey data show that one ring spinner, Alcan Mana'ai, and eight open-end spinners were established after cotton/textile subsector liberalization got underway in 1994/95. One other private ring spinner, Al Maidani Spinning and Weaving Company, was established as a twisting company in 1994, just as the first steps of liberalizing the domestic seed cotton market were undertaken. MVE has

[1] Pre-privatization assistance involved studies, privatization plans, inventory reduction at public textile companies, debt resolution, and development of guidelines for the MPE, HC and spinning and weaving AC's to devise and negotiate leasing and management contracts.

also learned that other private investors are planning to establish spinning mills in El Obour industrial zone, Borg el Arab, and perhaps other locations. More joint ventures with foreign spinners are anticipated in ring yarn spinning, where higher counts of yarn are spun, using high-quality Egyptian lint cotton, for export of yarn to Europe, the U.S. and Turkey. These investments have been and are being made in a generally more liberalized policy and regulatory environment.

1.4 Focus of Paper

This paper will focus relatively more on the new private sector spinners, rather than the traditional spinners in Fowah and other locations[2], whose activities are important (and were not well known before the MVE survey), but who were established largely before liberalization got well underway. Four Fowah sample spinners were created in 1995 and one in 1994.[3] Two others were established in 1997. These companies spin largely waste and their investment decisions were not directly influenced by policy changes affecting marketing, ginning and spinning of Egyptian lint cotton. The generally liberalized economic and policy environment in Egypt during the 1990s did contribute, however, to the expansion in the numbers of these traditional spinners and the number of lines that the already existing firms operated (i.e., some firms added production capacity to an existing plant after 1994).

[2] There are also traditional, small-scale spinners located in Mehalla, Rashid, Assiut, Akmim, and Sohag. Their numbers are not known.

[3] These start-ups refer to the sample of 12 Fowah spinners only, which is a 10% sample of the estimated population of 120 firms. We do not know how many of these 120 firms were created from 1994 onward. If the proportion of post-liberalization start-ups is the same for the population as for the sample firms, as many as 50 companies in Fowah may have been established since 1994.

2. ENUMERATING & CLASSIFYING PRIVATE SPINNERS

2.1 Rationale

Developing an *ex post* classification scheme is required to do useful cross-tabulations and meaningful analysis of the survey data. Note that the survey was a census of formal private spinning establishments, covering the known population of firms, except for a 10% sample of an estimated 120 small firms in the geographic cluster of Fowah.

A classification scheme can have more explanatory power and utility if the firms within categories share several characteristics. In other words, it is desirable to have a high degree of overlapping of key characteristics or attributes. In the spinners' survey, key variables that could be used to classify private firms include:

- scale of operation and output
- ownership type
- firm location/cluster (industrial zone, particular geographic cluster, other)
- spinning technology (ring vs. open-end)
- types of inputs used (lint vs. waste)
- types of outputs produced (types and counts of yarn)
- market orientation (domestic vs. export markets)

Based on an initial systematic examination of firm characteristics, MVE classified the 35 spinners into three main categories:

- privatized spinning companies (n=5, where two are owned by anchor investors and three are leases)
- traditional small spinners of yarn for carpets and blankets in Fowah (n=12 of estimated 120 in the entire population)[4]
- other private spinners (n=18, where 5 are ring spinners and 13 do open-end spinning)

Table 2-1 summarizes some of the important characteristics of the different categories of spinning companies: date of establishment, raw material used, counts of yarn spun, and average yarn output for the category of firm. *The scale of operations differs significantly between firm categories.* Privatized companies are by far the largest, spinning 10,696 mt of yarn on average in 1998/99, as compared to an average of 234 mt per year for the sample Fowah firms and 1,132 mt for the open- end spinners. The privatized spinners also had 10,837 employees, or 83.9% of the workers in the surveyed firms other than the Fowah sample spinners. Ring spinners employed 696 workers (5.6%); open-end

[4] These sample Fowah spinners represent traditional private spinners who produce carpets, blankets and fabric for rural consumption in Egypt. Similar traditional spinners are scattered all over Egypt. This is the first time that anyone has studied this type of spinning operation.

spinners employed 1,294 workers (or 10.5%). (See the Annex for more detailed data summarizing characteristics of privatized spinners, ring spinners, and open-end spinners).

Table 2-1: Private Spinner Population/Sample Characteristics

Characteristic	Privatized Firms	Sample Firms in Fowah	Ring Spinners Doing All Ring Operations	Twist Ring or Open End Yarn Only	Open-end Spinners	Total
Population or Sample	5	12	2	3	13	35
Date of Establishment						
Before 1990	5	3	1	2	3	14
1990-1994		3		1	1	5
1997-1998		4	1		6	11
1999		2			3	5
Raw Material						
Egyptian Lint Cotton	5		2	3	9	19
Sudanese Lint Cotton			1		1	2
Waste		12			5	17
Counts of Yarn Spun						
Ring Yarn < NE 30	2	3	2			7
> NE 30 & < NE 50	2	6	3			11
> NE 50	2	3	2			7
OE Yarn NE 6-10	1				8	9
> NE 10 & < NE 16	1				9	10
> NE 16	1				8	9
Aver. Yarn Output, '98/99						
Ring	10,696	234	1,248	3,624	0	
Open-end	336	0	78	0	1,132	

Notes: The MVE sample is a census for privatized firms and other private spinners. It is a sample of firms in Fowah. Three of the privatized firms are leased plants of public. Two are entirely privately owned multi-plan companies. Two privatized firms spin open -end yarn. One of the private ring spinners uses both Sudanese acala and Egyptian lint cotton. Numbers reported under counts of yarn spun indicate the numbers of companies who spin yarn in particular count ranges. Companies typically spin counts that fall into more than one

The broad category of "other private spinners" proved to be the most heterogeneous. Closer examination of the five ring spinners revealed that three did only one operation (twisting[5] of the yarn), which follows ring spinning. These firms also reported contracting with privatized ring spinners to produce ring-spun yarn. Their annual output was higher than for the two ring spinners who performed every step in the ring spinning process.

Analysis of the open-end spinning operations showed that 9 of 13 spin Egyptian lint cotton and 5 spin various types of waste.[6] Differentiating by type of input is useful and overlaps with other characteristics, most notably with when the firms were established. Most of the open-end spinners using waste (4 of 5) were established before liberalization, when it was difficult for private spinners to obtain Egyptian lint cotton. Those open-end spinners using only Egyptian lint cotton (7 of 8) were established after liberalization got underway (1997 or later), which is a positive development.

2.2 Key Characteristics of Each Category of Spinning Company

2.2.1 Privatized Spinning Companies

MVE enumerated all the privatized spinners, including two majority-owned private firms (Unirab and Alexandria Spinning and Weaving) and three leases to private operators:

- DIP, a single ESCO plant that operates as a subsidiary of Dong Il (Korea);
- three spinning units at Minya El Khamh, part of the public spinning company Sharkeya Spinning and Weaving; and,
- one small open-end spinning operation, run by El Alamia Export, Import and Spinning, and located at a Cairo Dyeing and Finishing Company plant.

There are other private leaseholds of public textile companies, but these are mainly in weaving and RMG production. There appears to be spinning of yarn under contract to private traders in several public sector spinning companies, including Upper Egypt and Middle Egypt Spinning and Weaving Companies.[7] There is also another fully privately owned company, KABO, that is a knitter and does not do any spinning.[8] In 1999/2000, MPE attempted to privatize STIA and Shebin El Kom, two better performing public sector spinners and weavers, without success. At the moment, privatization seems stalled, so the number of privatized spinners remains small.

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[5] There are numerous twisters in Egypt. Some have technologically very simple operations that produce a small volume of twisted yarn. MVE is unaware of any studies done of either these small-scale twisting operations or the three larger companies surveyed in 1999.

[6] One open-end spinner uses both Egyptian lint (Gizas 80/83) and waste as raw material.

[7] These contracts are of limited duration and usually involve operating only one production line.

[8] The group of investors that has majority ownership of KABO, led by Samir Riad, also owns Alexandria Spinning and Weaving. Riad was well established as a private knitter before he became the majority owner of these two former public companies.

The five firms differ significantly in scale and scope. The two fully privatized and 100% private sector owned companies are large multi-unit operations operating on the largest scale. In 1998/99, these firms produced 21,372 mt (Unirab) and 12,357 mt (Alex S&W) of yarn respectively. Most of the yarn (20,280 mt or 95%) produced by Unirab is ring spun yarn, of which 80% is sold in the domestic market. Alex S&W is an entirely ring spinning operation that also sold most of its output, 80% or 9,886 mt, domestically.

The leased companies operated on vastly different scales. The large leased spinning units of Sharkeya Spinning and Weaving Company at Minya El Kamh produced 7,656 mt of yarn that same year, all of which was sold domestically. DIP Egypt, a spinning unit of ESCO leased by Dong Il of Korea, produced far less yarn in 1998/99—1,400 mt, half of which was exported. Finally, El Alameya for Import and Export and Spinning, which leased a small spinning unit from Cairo Dyeing and Finishing, a public company in the process of liquidation since 1998, produced only 336 mt of open-end yarn, all of which was supplied to the domestic market.

All of the privatized spinners use Egyptian lint cotton, particularly Gizas 80/83 and 75, but also Gizas 85, 86, 89 and 70 (70 by Alex S&W only). But given the diversity of technologies, output levels and mixes, and export or domestic market orientation, it is perhaps fallacious to consider these firms as a homogeneous category. Leases tend to be for single plants (or more than one of the best plants), which are typically the spinning units with the most modern equipment and best potential, rather than of all the units in an entire public company. Hence, the overall output of these leased plants will be typically lower than that of privatized companies where the entire company has been taken private and is now privately owned and managed. However, labor productivity rises for the leased spinning units, in part because the number of workers at those units is typically reduced and also because machinery is repaired or replaced and the labor force is better managed than under public sector management.

A lessee is also more likely to do a five- or ten-year lease to do ring spinning rather than open-end spinning, because the profit potential is higher for higher yarn counts. One would also expect *a priori* that privatization through acquisition (long-term ownership) would be most attractive when ring spinning is involved. This is true of Alexandria S&W, where 100% of the operation produces ring yarn, as well as for Unirab S&W, where 95% of the output is ring yarn. In contrast, a lessee operating on a small scale, such as El Alamia Export, Import and Spinning Company, might be more likely to do open-end spinning.

As a proxy for spinning capacity, the number of spindles is a valid measure. Unirab Spinning and Weaving has 207,216 ring spindles and 2,856 rotors while Alexandria S&W has 147,000 spindles. DIP has 53,148 spindles, while Minya El Kamh, which is divided into three separate units of 41,280, 7,680, and 29,280 spindles, has a total of 78,240. El Alamai has only 500 rotors, by far the smallest spinning operation.

2.2.2 Traditional Spinners of Fowah

MVE surveyed 12 private spinners in Fowah District, after discovering that this district has about 120 producing units that spin a certain kind of coarse yarn for weaving blankets, carpets, kilims, cover-lits, and other products by using the waste of the textile industries and some low-quality cotton (*aktan*

watiya). This 10% sample was chosen on the basis of the following criteria: ease of access, how cooperative the firms were, and how knowledgeable they were about the industry.

The traditional factories of Fowah are quite homogeneous with respect to production quality and techniques, physical proximity, and ownership (single or family proprietorships), even though there is no formal association or governmental organization working with them. The reason behind this homogeneity is typically either imitation or inheritance, as the person who wants to build a factory either imitates his neighbor, who previously built a similar factory, or inherits the production style (technique) from the family.

The 120 factories can best be differentiated by the number of lines in each factory, though the contents of the production line and the number of workers on each line are nearly the same in all factories. The population of factories can be classified according to the number of lines as follows:

- 100 factories, consisting of two production lines;
- 15 factories, consisting of three production lines; and,
- 5 factories, consisting of one production line.

Interestingly, *little was known about spinning in the Fowah District before the MVE survey*. The area has only one registered factory in the Egyptian Textile Manufacturing Federation (ETMF), so decision-makers know little about this industrial zone (or others like it), which is a cluster of producers of yarn for blankets, carpets, and kilims. There are similar traditional producers scattered all over Lower and Upper Egypt in Mehalla, Rashid, Alexandria, Assuit, Sohag and other locations. Table 2-2 lists each of the 12 factories surveyed and the number of production lines.

Fowah District is in Kafr El Sheikh governorate, the middle part of the north section of the Nile delta, and is located in the northwestern part of the governorate, which is near the Mediterranean Sea at Rashid. It is about 12 km. from Dessouk, and the industrial zone is located on both sides of the new main agricultural road that passes through Fowah District going to Metobas.

A key characteristic of the Fowah traditional spinners is that they use various types of waste as their input and purchase no lint cotton. The different types of yarn are spun partly from cotton waste, which is mainly obtained from public ginning and spinning companies or from domestic sellers, who may import some of what they sell domestically.[9] Cotton waste is typically mixed

[9] While only two of the companies surveyed (open-end spinners) reported importing waste directly, MVE suspects that a good (though unknown) proportion of the waste used as an input by the Fowah spinning companies and those open-end spinners who use some waste is imported (but not directly by the spinners themselves).

Table 2-2: MVE Sample of Traditional Spinners in Fowah

	Factory Name	Owner's Name	# Lines	Location
1	Startex	Mohamed Ibrahim Farahat	2	Fowah
2	Al Fadali Spinning & Weaving	Hamdi Mohamed El Fadali	2	Fowah
3	Weza for Industry & Trade	Abdel Mona'em Badawi Weza	3	Fowah
4	Ali Bassal	Ali Bassal	3	Fowah
5	Gamal Mohamed Abu Ahmed	Al Habashi Abu Ahmed	3	Al Salmeya
6	Al Bossat for Carpets & Spinning	Mohamed Abdel Motaleb	2	Fowah
7	Rashad Abu El Sa'ad	Rashad Abu El Sa'ad	2	Fowah
8	Abdellah Hantira	Abdellah Hantira	2	Fowah
9	Reda Hantira	Reda Hantira	2	Fowah
10	Mabrouk Karam	Mabrouk Karam	2	Fowah
11	Al Mabrouk Al Liboudi	Al Mabrouk Al Liboudi	1	Akerbit
12	Al Sayed Weza	Al Sayed Weza	1	Fowah

with synthetics, typically acrylic or polyester, or with wool; cotton typically represents 20-35% of the raw material mixture. While a limited number of the Fowah factories have lines for blankets, carpets, or kilim weaving, most of the factories are specialized in spinning and they supply the weaving factories in Mehalla El Kobra with yarn. Fowah is also known for coarse wool spinning.

The types of yarn output are classified in different ways than yarn typically is classified in Egypt, where most spinners follow the English count system.[10] The annual output of the sample spinners also falls within a narrower range, 130 to 388 mt, than output for the other types of private spinners. This suggests that these firms operate on a similar scale using similar spinning technology and machinery. Differences in output levels depend mainly on the number of lines in a spinning factory. Most Fowah spinning mills (an estimated 100 of 120 firms) have two lines, as noted above.

Note that the waste from public sector spinning companies is a by-product of opening/cleaning, carding, combing, spinning and winding cotton. Table 2-3 shows rough estimates of the range of waste generated by different spinning operations. The combing operation, which produces the highest proportion of waste–10-20%, yields fibers of greater consistency and more homogeneous length. When Egyptian cotton lint is combed, the waste produced from all the spinning operations is 19-40%. When carding is done and combing is not, the waste from all operations is still 9-20%.

[10] There is also a French system of classifying yarn counts. Conversions between the English and French system are possible using a formula.

Table 2-3: Estimated Range of Waste from Spinning Operations

Operation	Low Estimate of % Waste	High Estimate of % Waste
Opening and cleaning	(non-Egyptian lint) 5%	(Egyptian lint) 10%
Carding	2%	5%
Combing	10%	20%
Spinning	1%	3%
Winding	1%	2%
All Operations: Combed	19%	40%
All Operations: Carded	9%	20%

2.2.3 Ring Spinners

There are five private sector companies involved in one or more stages or processes of ring spinning. *Two are fully integrated ring spinning operations*: Giza Spinning and Weaving, created in the late 1980s, and Alcan Manai, a new start-up established in late 1998. These firms purchase lint cotton and do all of the steps in ring spinning on their premises. The three other companies, Dowitex (1988), 10th of Ramadan Spinning and Weaving (1984), and Al Maidani Spinning and Weaving (1994), do only the twisting operation, a stage subsequent to ring spinning. The ring spinning is performed for these twisting firms by public sector spinning companies under contract. Two of the three use the recently privatized Minya El Kamh (formerly Sharkeya Spinning and Weaving Company) to perform most of the ring spinning operations. A third company works closely with Oriental Weavers. Al Maidani S&W also does weaving. When analyzing data, the two types of ring spinners need to appear in separate subcategories, as they are significantly different enterprises.

Ring spinning is technically more demanding and requires greater investment than open-end spinning. Until recently, it was considered the domain of public sector spinners, with Giza Spinning and Weaving serving as the lone private sector ring spinner that used the output of its spinning enterprise internally in producing wovens and knits. Giza S & W was also considered different in that it used largely Sudanese lint cotton, particularly cheaper, medium-staple *acala*, rather than more expensive Egyptian long-staple cotton lint.

Ring spinning produces yarn of medium and fine counts, particularly over NE 24. Domestic demand for coarse count yarn is much higher. Foreign demand is greater for combed Egyptian yarn (exclusively ring spun) and higher counts. Higher count yarn commands higher prices, reflecting the higher cost of the lint used for ring spinning, the greater investment and operating costs of ring spinning mills, and the greater proportion of waste produced in ring spinning (particularly when combing is done). In theory, Egypt should use its high-quality, long and extra long-staple cotton lint to spin higher-count yarns used in making fine cloth and apparel. World demand for fine cotton, using *barbadense*, was characterized as limited in 1997/98 (see Outlook Consulting Limited, CSPP, 1997), though demand appeared to have picked up in 1999/2000 (see Swanberg et al., APRP/RDI, 2000).

2.2.4 Open-end Spinners

Open-end spinners produce coarse count yarn, generally under NE 20 but occasionally over NE 20. The raw material used in open-end spinning in most parts of the world is short-staple lint cotton or cotton waste from ginning and spinning operations. This is not usually the case in Egypt, where Gizas 80 and 83, *barbadense* cottons that are at the low end of the long-staple range, are used more widely than waste.[11] Giza 80 and 83 are high-cost raw material for open-end spinners in Egypt. Many of them would like to see Egypt produce short-staple cotton or for the GOE to make it easier to import cheaper foreign short- and medium-staple (see chapter 10).

The 2000/2001 cotton marketing and spinning season will likely witness the largest volume imports of cotton since 1995/96, a year of low production, when imports were 400,000 lint kentars (or 90,000 bales of US cotton, shipped by Calcot).[12] The summer 2000 cotton crop will probably be the smallest during the past century, as planted area was announced as 535,000 feddans but may be only about 500,000 feddans. Some observers also reported that much of the cotton was planted late in the spring of 2000, which they feared would lower average yields.[13] Egyptian spinners, including the surveyed private firms, will need access to cheaper imported cotton (than Egyptian *barbadense*) if they intend to operate at the same levels that they did in 1998/99 and 1999/00. As of mid-May 2000, private spinners were reporting that there was no more Giza 80 or 83 for sale in Egypt.

[11] In 1998/99, the surveyed open-end spinners reporting using 6,300 mt of waste and 10,294 mt of lint.

[12] The Textile Manufacturing and Trade Holding Company imported 330,000 kentars of Greek lint cotton in 1999/2000. Most of this lint was spun by public sector spinning companies, however. In early 2000/01, international bids were solicited for 300,000 kentars of cotton lint by the Holding Company; a Greek company won this bid. Finally, a second import tender for 400,000 kentars of Syrian cotton lint was accepted in November 2000.

[13] MVE and MALR/CAAE forecasts of seed cotton yields, as of the end of September 2000, actually were encouragingly high, ranging from 6.8 seed kentars per feddan for Giza 86 to 7.61 seed kentars for feddan for Giza 70.

3. ENTRY INTO PRIVATE SPINNING

Entry into private spinning is likely to lag liberalization efforts and be influenced by the pace and thoroughness of privatization. This chapter predicts the conditions under which different categories of private spinners would be established and attempts to reconcile these predictions with what actually happened before and after liberalization began. Table 3-1 presents our predictions schematically.

Table 3-1: Effect of Liberalization on Entry into Different Types of Private Spinning in Egypt, Before and After Liberalization

Predicted Response of Private Investors				
	Privatized Firms	Ring Spinning	Open-End Sp.	Traditional Sp.
Before Liberalization	no privatization	none, segment dominated by public spinners	few, spinning waste & cheap lint (low grades, mixed)	many firms, but in small niche missed by public sector
Right After Liberalization (short run, 1994-1997)	anchor investors privatize the best-performing public firms	none or few; investors wait to see if liberalization will stick before making costly investments	some investment, provided private spinners can obtain Egyptian (& also imported) lint easily	not many, though some firms may expand or diversify (into weaving)
Post-Liberaliz. (medium run, 1998-2002)	leases & managmt. contracts let to privatemanagers who run good units of poorly-performing public firms	private investors cautiously begin to invest; pace faster if public ring spinners face increased financial problems & closures	more investment as spinners able to procure lint & out-compete troubled public spinners in making low-count yarn	continued, though modest expansion & diversification
Actual Response of Private Investors in Egypt, 1994-2000				
	Privatized Firms	Ring Spinning	Open-End Sp.	Traditional Sp.
Before Liberalization	no privatization; some plant closures	3 twisting-only firms & 1 spinner who uses yarn in own weaving, knitting, RMG prod.	4 firms, of which 3 spin only waste & 1 both waste & lint	many of these small spinners were established in Fowah & other locations
Right After Liberalization (short run, 1994-1997)	two well-run public spinners taken private through IPOs (one controlled by an anchor investor)	no investment; perceived as too risky and high-cost	1 firm (of 13) established; spins Giza 80/83	half of sample Fowah firms established; this is surprising
Post-Liberaliz. (medium run, 1998-2002)	3 leases of one or more sp. units of troubled public spinning companies; priv. stalls for IPOs & sales to anchor investors	one fine-count spinner established; two others may be established in 2001	8 firms established; 7 spin Egyptian lint, mainly Giza 80/83, & 1 spins waste	no further known start-ups, but expansion & diver-sification of existing units are likely underway

Most of MVE's predictions about the effect of liberalization on the private spinning industry were borne out. *Pre-liberalization investments were made in niche spinning activities that did not duplicate what the public spinning companies were doing, while post-liberalization investments were made in spinning operations that did challenge public spinners.* Three of four ring spinners entered the twisting yarn only niche, which they did under contract to large public spinners or to private weavers. Open-end spinners targeted the waste processing niche before liberalization, but investment expanded in open-end spinning in 1997-1999 to use largely Giza 80/83 to spin higher-quality low-count yarn at lower cost than many public spinners were doing. Traditional spinners, targeting a different niche altogether, continued to expand through some new investment, but also through expanding their existing operations. Two of the better public spinning companies were privatized via IPOs, with one controlled by an anchor investor. The next sections cover the investment patterns and strategies of different categories of private spinners.

3.1 Timing of Entry

Excluding the Fowah sample mills, Table 3-2 shows that two-thirds of the private spinning units (15 of 23) were established in 1997, 1998 or 1999. None were created in 1995 or 1996, and two (9%) were established from 1990 to 1994. This seems to be a lagged response to liberalization of the cotton/textile subsector, but the story is a bit more complex. First, note that all the privatized companies began to operate under private management by early 1999, although each of them was established before nationalization in the 1960s. This can be interpreted as a positive response to liberalization of the cotton subsector generally, though more precisely it is a response to the opportunities created by the GOE's privatization program.

Table 3-2: Dates of Establishment of Private Spinning Mills

	Privatized Companies	Other Private Spinners		Subtotal (non-Fowah)	Sample Fowah Firms	Total
		Ring	Open-end			
Pre-1990	0	3	3	6	3	**9**
1990-1994	0	1	1	2	3	**5**
1997	1	0	1	2	6	**8**
1998	2	1	5	8	0	**8**
1999	2	0	3	5	0	**5**
Total	**5**	**5**	**13**	**23**	**12**	**35**

Notes: 1) The privatized companies were established as private and later public (nationalized) companies long before 1997. The table indicates when they were privatized (became majority owned or were leased).
2) One open-end spinner had not yet begun operations at the time of the survey.

The Fowah companies present a different picture. Half of the Fowah sample units were established before liberalization and half after 1994, although MVE learned that most of the Fowah population of traditional spinners was established before 1994.

Looking at establishment dates for the other private spinners gives what initially seems as a counter-intuitive result. Only one of five ring spinners began operations after 1994; *a priori* one would expect ring spinners spinning higher-count yarn to enter the industry after the Egyptian cotton market had become more liberalized. The one spinner established in late 1998 is indeed a high-count spinner. Of the four ring spinners established in the 1980s (3) and 1994 (1), three are twisting operations. These firms were established to fill a narrow niche in an industry dominated by large public spinning companies. The other ring spinner, Giza Spinning and Weaving, is a special case in that it is an integrated spinning, weaving, knitting and RMG- producing operation. The yarn it spins, largely from cheaper, medium-staple length Sudanese *acala*, is an intermediate input into its own textile manufacturing. Giza S&W sells mainly woven cloth and woven/knit garments, not yarn.

Another finding is that *most open-end spinners were established after liberalization.* Nine of 13 began operations from 1997 to 1999, and only four pre-date liberalization.[14] At first glance, this finding seems surprising, in that one would expect open-end spinners, who use waste and low-grade (such as varietally mixed) cotton lint, to be niche operations whose establishment was encouraged by public sector dominance of ring spinning in the 1980s and early 1990s. Disaggregating the open-end category into those firms spinning Egyptian lint cotton and those spinning various types of waste reveals, however, that 8 of 9 companies established from 1997 to 1999 purchase lint rather than waste. These spinners emerged in a more liberalized environment where the system of administrative allocation of lint by Holding Companies was breaking down, and private cotton trading companies had emerged and were selling lint cotton to financially solvent domestic spinners, as well as exporting lint to foreign buyers. Because of the lower investment costs required to set up open-end spinning units than ring spinning lines, private investors could enter open-end spinning more easily and compete with public spinners, given their higher efficiency and lower operating costs. Investments in ring spinning are more costly, the payback period on these investments is generally longer, and private investors need to be assured that liberalization of the cotton/textile subsector is here to stay. This largely explains investors' hesitance in setting up new ring spinning operations, although two other companies intend to make such investments in the near future.

Note that the new open-end spinners buy a wide range of LS and MLS varieties, though in volume terms purchases of Gizas 80 and 83, the least expensive domestically produced varieties, predominate. All nine open-end spinners who use Egyptian lint bought Giza 80 and 83 in 1998/99. Two also bought Giza 85, a higher quality LS and more expensive variety, while one each bought Giza 75 and Giza 86 (most likely lower grades of these two more expensive varieties).

3.2 Relationship of Timing to Liberalization Measures

[14] The establishment of so many open-end spinning mills in the mid to late 1990s may be related to the closure of an open-end spinning factory at Miratex. Miratex sold old spinning machinery at very low prices. It will be difficult, in the future, for the open-end spinners to find spare parts for these machines.

Private investment rarely follows quickly after government announcements of liberalization of particular markets in any part of the world. Private investors are wary and will only put down large amounts of scarce capital when they are convinced that the government is serious about liberalization and plans to stay the course. Any evidence or hint of back-sliding on policy and regulatory reform will discourage private investment plans. *Policy uncertainty is anathema to private investors, although they will take calculated risks if the policy environment seems relatively stable and appears to be moving steadily in the right direction—towards greater openness and liberalization.*

The data presented in Tables 3-1 and 3-2 support this notion of lagged private sector response to subsector liberalization. Historically, the spinning industry was dominated by public sector companies and controlled by the three cotton/textile Holding Companies that allocated lint cotton to different public spinners by committee. While the Facilitating Committee for Lint Allocation still exists, its power and role have diminished. Many public spinners have faced financial troubles, and they are unable to buy lint with cash. For a couple of years (1996/97 to 1997/98), Holding Company guarantees that indebted public spinning companies would repay public cotton trading companies sufficed to keep the weaker public spinners operating, generally at levels well below capacity. By 1998/99, even Holding Company guarantees were insufficient for public trading companies, who preferred selling lint on a cash basis to the strongest public sector spinners,[15] the joint investment companies (Miratex and Misr Amriya), and the privatized spinners. There is some evidence that the private spinners buy some of their lint from public sector trading companies (see Chapter 5).

The increasing participation of private cotton trading companies in seed cotton buying is an important development that goes hand-in-hand with the emergence of a private sector spinning industry. While only three large private trading companies bought seed cotton and delivered it to the gins in 1997/98, ten firms did in 1998/99 (all ALCOTEXA members except one) and more than 18 did in 1999/2000. This last group included 11 ALCOTEXA members, 7 registered cotton traders who are not ALCOTEXA members, and an unspecified number of smaller private traders who bought cotton mainly outside the sales rings. The larger companies, particularly the ALCOTEXA members, have the seed cotton ginned and sell the lint. The larger private trading companies give priority to export sales in most years, while the smaller, lower-volume traders sell to other trading companies, both private and public, and to domestic spinners. In 1999/2000, an estimated 44.7 percent of the seed cotton was procured by private buyers, creating opportunities to sell the ginned lint cotton in both the export and domestic markets. Export sales (commitments) by private traders dropped in 1999/2000 relative to 1998/99 (16,646.5 mt as of 23 September 2000 vs. actual shipments of 27,588.2 mt for the entire 1998/99 season), while their purchases of seed cotton increased 50% from 1,127,843 kentars in 1998/99 to an estimated 1,689,960 kentars in 1999/2000. This has left more lint for sale to domestic spinners, an alternative market for the private exporters. In theory, 1,614,281 kentars, or 83.1% of the lint cotton equivalent of their total seed cotton purchases, is available for sale to domestic spinners. As

[15] The most financially solvent, best performing public spinners are Misr Mehalla, STIA, Shebin El Kom, and Delta Spinning and Weaving. Public companies such as El Siouf, National, Sharkeya, El Nasr, Dakhalia, and Damietta spinning and weaving companies perform less well yet keep operating. They have trouble financing lint purchases, typically on short-term credit (which may be extended by the trading company that sells the lint).

of 30 June 2000, private trader sales to domestic spinners reached 1,183,486 lint kentars, or 73.3 % of the theoretically possible sales.

Egyptian cotton traders stated in 1999/2000 that selling to domestic spinners was more profitable, because they avoided various fobbing costs and other export-related expenses, such as farfarra. The fixed margin for domestic marketing costs was dropped from LE 60 to 50 from 1998/99 to 1999/2000, and the fobbing cost allowance declined from 12 cents/lb. to 10 cents/lb. Last, they can supply the lower grades of lint to the domestic spinners, who do not require HVI tests and are interested in the cheapest and hence lowest grades of cotton. The higher grades are reserved for export. *Private traders' increased sales of lint cotton to domestic spinners have coincided with greater demand for Egyptian lint by private spinners*. While public cotton trading companies are potentially a source of supply, they may be compelled by the holding companies to give priority in sales to public sector spinners who are able to pay cash.[16] A last factor that private traders consider is the ability of a domestic client to pay for the lint cotton; financially solvent private sector spinners are less of a risk than many public sector spinning companies (other than the top tier of profitable public spinners).

Tables 3-2, 3-3 and 3-4 show that the estimated proportion of private traders' lint cotton supplied to spinners was the highest in 1999/2000 of the past three years–at least 60.6% of their estimated lint cotton availability. This proportion could exceed 80% by the end of the 1999/2000 marketing season. The volume of lint cotton sold to private spinners also increased dramatically over the three years, rising from only 8,037 lint kentars in 1997/98 (less than 3% of the seed cotton purchased by private traders) to 539,432 lint kentars in 1999/2000 (as of 30 June 2000).[17] Looking at the breakdown of private traders' sales of lint in 1999/2000 shows that exports declined as a proportion of traders' estimated lint cotton availability, from 35.4% in 1998/99 to 19.3% in 1999/2000.

[16] The public trading companies will probably also sell their better quality lint reserved for the domestic market (with the top quality lint exported) to public spinners rather than private spinners. This has been alleged and admitted in the case of public traders selling lint to private exporters, who receive the worst grades.

[17] Note that there are slight discrepancies between Tables 3-4 and 3-5. For example, sales by private traders to private spinners are reported as 539,432 lint kentars, while private spinner purchases from private traders are reported as 532,400 lk.

Table 3-3: Seed Cotton Purchases and Lint Cotton Sales of Private Trading Companies, 1997/98

Company	Seed Cotton Purchases (sk)	Lint Cotton Equivalent	Export Sales	Export Sales	Percent Exported	Domestic Sales to: (All lk)				
						Other Traders	Domestic Spinners			
		(lk)	(mt)	(lk)	(%)		Private	Public	JI	Total
Arabia Ginning	82,075	94,386					0	90,700	0	90,700
Modern Nile	276,180	317,607	12,430	248,600			8,037	112,035	51,486	171,558
Subtotal: Modern Nile Group	358,255	411,993	12,430	248,600	60.3%	-98,865	8,037	202,735	51,486	262,258
ATICOT (Dabbah)	19,997	22,168			0.0%	0	0	22,168	0	22,168
Subtotal	378,252	434,161	12,430	248,600	57.3%	-98,865	8,037	224,903	51,486	284,426
% Subtotal		100.0%		57.3%		-22.8%	1.9%	51.8%	11.9%	65.5%
Nefertiti Trading			4,225	84,500						
NASSCO			4,460	89,200						
Talaat Harb										
Al Watany			863	17,260						
Total	378,252	434,161	21,978	439,560		-98,865	8,037	224,903	51,486	284426

Sources: Cotton and International Trade Holding Company. MVE Survey of Seed Cotton Marketing, 1999/2000. MVE Interviews.

Notes: 1) An average out-turn ratio of 115% is assumed in converting seed to lint cotton.

2) Note that Arab Ginning and Modern Nile are considered as one integrated enterprise.

3) Private trading companies generally do not carry over stocks from one year to the next. Carryover into the 2000/01 season is assumed = 0.

4) JI spinners are joint investment companies: Miratex and Misr Amriya. MVE does not consider them public or private. Technically speaking, they are Law 159 companies (whereas public sector companies are Law 203 companies).

5) Only three companies purchased seed cotton in 1997/98. The other trading companies bought their lint for export from public sector companies. Modern Nile also bought from public sector companies to meet its export commitments.

6) The three seed cotton buyers' exports + sales of lint cotton to domestic spinners > the estimated lint cotton out-turn of the seed cotton they bought by an estimated 98,865 lint kentars. It is assumed that they acquired this additional lint cotton from other traders (see negative number -98,865 in "Other Traders" column). In 1997/98, these other traders were all public companies.

Table 3-4: Seed Cotton Purchases and Lint Cotton Sales of Private Trading Companies, 1998/99

Company	Seed Cotton Purchases (sk)	Lint Cotton Equivalent (lk)	Export Sales (mt)	Export Sales (lk)	Percent Exported (%)	Domestic Sales to: (All lk)				
						Other Traders	Domestic Spinners			
							Private	Public	JI	Total
Modern Nile & Arabia Ginning	609,705	701,161	11,305	226,100	32.2%	-53,138	238,982	204,645	84,572	528,199
Nile Cotton Ginning Company	111,382	128,089	349	6,980	5.4%	49,579	8,355	47,795	15,380	71,530
NASSCO Trading Co.	36,243	41,679	4,790	95,799	229.8%	-74,183		20,064		20,064
ATICOT (Dabbah)	70,580	81,167	458	9,160	11.3%	6,444	32,921	32,642		65,563
El Mabrouk Cotton Company	25,603	29,443	75	1,500	5.1%	685	27,258			27,258
Tanta Cotton Trading Company	91,398	105,108	150	3,000	2.9%	38,934	35,758	27,416		63,174
Attar (Banha)	9,654	11,102	0	0	0.0%	11,102				0
Nefertiti Trading	18,150	20,873	3,256	65,120	312.0%	-44,248				0
El Watany	31,693	36,447	1,863	37,260	102.2%	-25,950	12,726	12,411		25,137
El Bostania (EMIPAC)	123,435	141,950	227	4,540	3.2%	133,679	3,731			3,731
EDCO	0		151	3,020		-3,020				0
Talaat Harb	0		349	6,980		-6,980				0
Total	1,127,843	1,297,019	22,973	459,459	35.4%	32,905	359,731	344,973	99,952	804,656
% Total		100.0%		35.4%		6.0%	27.7%	26.6%	7.7%	62.0%

Sources: Cotton and International Trade Holding Company. MVE Survey of Seed Cotton Marketing, 1998/99. MVE Interviews.

Notes: 1) An average out-turn ratio of 115% is assumed in converting seed to lint cotton.

2) Private trading companies generally do not carry over stocks from one year to the next. Carryover into the 2000/01 season is assumed = 0.

3) JI spinners are joint investment companies: Miratex and Misr Amriya. MVE does not consider them public or private. Technically they are Law 159 companies (whereas public sector companies are Law 203 companies).

4) A negative number in the "Other Traders" column indicates that the company bought cotton from other companies rather than sold it.

5) Domestic sales to other traders are calculated as a residual (lint equivalent of seed cotton purchases - exports - sales to domestic spinners).

These estimates should be interpreted as indicative, as they were not obtained directly from each trader who bought seed cotton. Note that we assume no carryover of untraded stocks.

Table 3-5: Seed Cotton Purchases and Lint Cotton Sales of Private Trading Companies, 1999/2000

Company	Seed Cotton Purchases (sk)	Lint Cotton Equivalent	Export Sales	Export Sales	Percent Exported	Domestic Sales to: (All lk)				
						Other Traders	Domestic Spinners			
		(lk)	(mt)	(lk)	(%)		Private	Public	JI	Total
Modern Nile	552795	646,770	7651	153010	23.7%		244,770	137,184	76,859	458,813
Tanta Trading	250820	293,459	302.1	6043	2.1%		79,509	14,996	0	94,505
Nile Ginning	197,294	230,834	613.1	12262	5.3%		20,098	67,483	62,605	150,186
El-Dabbah (ATICOT)	91209	106,715	725	14500	13.6%		85,079			85,079
NASSCO	99,220	116,087	3702	74040	63.8%	-13602	14,677	40,972		55,649
Talaat Harb	73,546	86,049	650	13,000	15.1%		3,485	36,576	29,119	69,180
El-Mabrouk	39,204	45,869				-914	46,783			46,783
Al-Watany	37,080	43,384	1,250	25,000	57.6%	-2,681	14,033	7,032		21,065
Benha	30,144	35,268				-867	22,890	11,295	1,950	36,135
Dawlia	22,668	26,522				-520	8,108	18,934		27,042
Nefertiti Trading	28,620	33,485	1,762	35,240	105.2%	-1755				
M. Abdel Rahman	17066	19,967				19,967				
Other Private Buyers	32809	38,387				38,387				
Total	1,472,475	1,722,796	16654.7	333095	18.1%	38015	539,432	334,472	170,533	1,044,437
% of Total		100.0%		19.3%		2.2%	31.3%	19.4%	9.9%	60.6%

Sources: Cotton and International Trade Holding Company. MVE Survey of Seed Cotton Marketing, 1999/2000. MVE Interviews.

Notes to Table 3-5 (see previous page):

1) An average out-turn ratio of 117% (across all varieties) is used in converting seed to lint cotton.
2) Private trading companies generally do not carry over stocks from one year to the next. Carryover into the 2000/01 season is assumed = 0.
3) JI spinners are joint investment companies: Miratex and Misr Amriya. MVE does not consider them public or private. Technically they are Law 159 companies (whereas public sector companies are Law 203 companies).
4) Sales figures are final export commitments for the year September 1999 to September 2000.5) Sales to domestic spinners are through 30 June 2000.
6) A negative number in the "Other Traders" column indicates that the company bought cotton from other companies rather than sold it.
7) Domestic sales to other traders are calculated as a residual (lint equivalent of seed cotton purchases - exports - sales to domestic spinners). These estimates should be interpreted as indicative, as they were not obtained directly from each trader who bought seed cotton.
8) Note that we assume no carryover of untraded stocks. Note that there should be some sales to domestic spinners after 30 June 2000, which would reduce the quantities, appearing as a residual, in the sales to other traders column.

CIT-HC data on spinners' purchases of Egyptian lint cotton (see Table 3-6) also show that *private spinners bought more lint from private traders than public traders in both 1998/99 and 1999/2000, and that this proportion increased from the earlier year (63.1%) to the next (73.6%,* as of 30 June 2000). It is also noteworthy that the two large joint investment companies, Miratex and Misr Amriya, who historically procured only from public sector cotton trading companies, increased the proportion of lint they bought from private traders in 1999/2000 (47.9%) relative to 1998/99 (34.0%). Public sector spinning companies also increased their proportion of lint purchases from private trading companies in 1999/2000 (38.5%) relative to 1998/99 (23.0%). These increased purchases from private traders reflect in large part the greater participation of private traders in seed cotton marketing during the 1999/2000 season relative to the 1998/99 season. *But such purchases from private traders by all types of spinners–private, joint investment and public companies–suggest that the spinning industry has greater confidence in the ability of private cotton traders to deliver lint cotton of good quality on reasonable terms than in the past. This is evidence of progress in liberalization of the cotton trade.*

3.3 Reasons for Entering the Spinning Industry

Private spinning company managers were asked why their firms entered the industry. The purpose of this question was to see if cotton subsector liberalization had an effect on private spinners' investment plans. The responses, shown in Table 3-7, suggest that the liberalized cotton marketing system, put in place beginning in 1994/95, did encourage private sector investment, particularly among open-end spinners (nine of whom were established between 1997 and 1999). Three of five privatized companies also stated that their entry was due to the liberalized environment in the cotton/textile subsector. One ring spinner (Alcan Mana'ai) also gave this reason.

Table 3-6: Private Spinners' Purchases of Egyptian Lint Cotton in 1998/99 and 1999/2000, by Trader Type

(Lint Kentars)

Spinner Type	Spinning Company	1998/99				1999/2000			
		Private Trader	Public Trader	Total	%	Private Trader	Public Trader	Total	%
Privatized Companies	Unirab	199,065	83,085	282,150		330,067	61,310	391,377	
	Alexandria S & W	128,778	112,024	240,802		197,996	48,470	246,466	
	DIP	29,284	2,981	32,265		0	55,328	55,328	
	Subtotal	*357,127*	*198,090*	555,217	*97.4%*	*528,063*	*165,108*	*693,171*	*95.9%*
Ring Spinners	Giza S & W	2,109	10,705	12,814		4,157	255	4,412	
	Alcan Manai	0	0	0		0	2,887	2,887	
	Subtotal	*2,109*	*10,705*	*12,814*	*2.2%*	4,157	3,142	7,299	1.0%
Open-end	Basioutex	0	1,229	1,229		0	2,413	2,413	
	El Anani	0	0	0		0	20,097	20,097	
	Daymtex	0	0	0		180	0	180	
	El-Masria Spinning	495	0	495		0	0	0	
	Subtotal	*495*	*1,229*	1,724	*0.3%*	*180*	*22,510*	*22,690*	*3.1%*
Total		**359,731**	**210,024**	**569,755**	**24.1%**	**532,400**	**190,760**	**723,160**	28.9%
Joint Investment	Miratex	0	57,832	57,832		10,737	97,199	107,936	
	Misr/Amerya	99,952	136,464	236,416		166,828	95,884	262,712	
	Subtotal	*99,952*	*194,296*	294,248		*177,565*	*193,083*	*370,648*	*14.8%*
Total Private + JI		459,683	404,320	864,003	36.5%	709,965	383,843	1,093,808	43.7%
Public Spinners		344,973	1,157,201	1,502,174	63.5%	473,521	935,412	1,408,933	56.3%
Grand Total		**804,656**	**1,561,521**	**2,366,177**	**100.0%**	**1183486**	**1319255**	**2502741**	**100.0%**

Source: Cotton and International Trade Company, monthly cotton bulletins.
Note: Purchases for 1999/2000 are through 30 June 2000.

Table 3-7: Reasons for Entering the Spinning Industry

Reasons Given by Owner/Manager	Privatized Companies		Sample Fowah Spinners		Other Private Spinners				Total No.
					Ring Spinner		Open-end Spinner		
	No.	%	No.	%	No.	%	No.	%	
Liberalized subsector & business envirnmt.	3	60%	0		1	20%	9	69%	8
Firm was in industry before liberalization	1	20%	6	50%	4	80%	4	31%	16
Owner/manager was manager in public company	0		1	8%	0		0		1
Attractive business opportunity	5	100 %	4	33%	5	100%	8	62%	22
Niche market opportunity	1	20%	1	8%	3	60%	4	31%	9

Quite a few of the spinners reported that they had been in the spinning industry before liberalization, including one privatized spinner, 6 of 12 Fowah traditional spinners, and 5 of 18 other private spinners. MVE recognizes that the liberalization of seed cotton marketing began in 1994/95, but we feel that this liberalization did not affect the textile industry until 1995. Hence, any investments in private spinning in 1994 are considered to be pre-liberalization, although one might argue that private investors' expectations had been raised by 1994 by GOE announcements of its intentions to liberalize the cotton market.

Many of the spinners (n=22) stated that they established private mills because this represented an attractive business opportunity, rather than explicitly stating that the cotton/textile subsector had become overall more liberalized (n=8). *Six of eight spinners who said that their decision to enter the spinning industry was due to liberalization of the subsector also stated that spinning was an attractive business opportunity*. A significant number of other private spinners—3 of 5 ring spinners, who specialize in the twisting operation only, and 4 of 13 open-end spinners—stated that they entered spinning, because they saw a niche market opportunity to do a particular type of spinning. Only two of these spinners, both open-end spinners, were established (in 1999) after liberalization (and privatization) had gotten underway. Hence, those private spinners who targeted particular niches appear to have established firms to do spinning operations that the public sector was not doing at all or not doing very well before liberalization.

3.4 Mix of Company Ownership Structures

Table 3-8 shows the ownership structure of the different types of firms. As expected, all 12 of the traditional spinning enterprises in Fowah are individual proprietorships. The types of ownership are varied for the three other categories of private spinners. Privatized spinners include two joint stock companies, one joint venture, one individual proprietorship, and one leasehold to foreigners (DIP). Two joint stock companies, Unirab and Alexandria Spinning and Weaving, have publicly listed and traded

stock on the Egyptian Stock Exchange.[18] One of the privatized companies that is leasing, El Alameya, operates as a sole proprietorship. The third lessee, Minya El Kamh, is an Egyptian textile firm that has produces RMGs.

Table 3-8: Ownership Structure of Companies Surveyed

Type of Ownership	Privatized Firms	Sample Firms in Fowah	Other Private Spinners		Total	% Total
			Ring	Open-end		
No. of Surveyed Firms	5	12	5	13	35	100%
Individual Proprietorship	1	12	2	2	17	49%
Partnership	0	0	1	8	9	26%
Joint-Stock Company	3	0	1	2	6	17%
Joint Venture Company	0	0	1	1	2	6%
Foreign Management	1	0	0	0	1	3%

Note: The MVE sample is a census for privatized firms and other private spinners. It is a sample of firms in Fowah. of firms in Fowah. Two of the privatized firms are leased individual plants & one leases three Two are entirely privately owned multi-plant companies. Two privatized spinners produce open-end yarn. Four of five privatized spinners produce open-end yarn. Four of five privatized spinners produce ring yarn.

Among other private spinners, the five ring spinners are split among four different ownership categories. One ring spinner (Alcan Mana'ai) and one open-end spinner (owned by the same Egyptian) are joint venture companies with foreign partners. Eight of 13 open-end spinners are partnerships, and two each are individual proprietorships and joint stock companies. Neither of the two open-end spinners or the one ring spinner who are joint-stock companies have publicly traded shares.

3.5 Entering Ring Spinning

Entry into open-end spinning and spinning of waste in traditional mills in Fowah is generally viewed as entry into niche markets not covered by public sector ring spinners and those public spinners who have privatized. In contrast, the decision to open a ring spinning operation represents a willingness to compete head to head with the rest of the public (and privatized) spinning industry. Until 1998, Giza Spinning and Weaving was the only ring-spinning private company that did all steps in the ring spinning process.[19] This firm is also well-diversified in weaving, knitting, finishing and production of RMGs. In late 1998, Alcan Manai was established as a high-end ring spinner that spins yarn of English counts greater than 70. In early 2001, Basioutex intends to add ring spinning to its existing open-end spinning operation. This is an interesting and unusual development that is described in Box 1. It is

[18] Alexandria is 53% owned by the Riad Group. 47% is owned by other investors.

[19] As described in section 2.2.3, three private spinning companies that do only the twisting operation of ring spinning were established before liberalization got underway.

rumored (though not substantiated) that a leading cotton trading and exporting company may establish a joint venture with a foreign partner to do ring spinning in Borg El Arab.

Box 1: Positive Response to Cotton/Textile Subsector Policy Reform

Abdallah Bassiouni is the owner and general manager of Basioutex, an open-end spinning firm established in 1995 and located in Mostorod (Qalubeya). Before that, he did twisting only, starting in 1986. At that time, there were only three other factories doing twisting (*zawi*). He bought single ply yarn from public spinners and twisted it into double ply yarn for private weavers in Kafr el Dawar and Mehalla.

Current Operation. MVE interviewed Mr. Bassiouni in late May 2000, after having surveyed him earlier. He spins open-end yarn, most commonly of counts 6, 8 and 16. He does some blends, typically 65% cotton and 35% polyester. He estimates that 60% of his output is pure cotton yarn, while 40% is blended cotton yarn. It is easy to adjust his open-end spinning equipment to do either pure cotton or blended yarn. His main customers are weavers in 10th of Ramadan, Samanoud, and Shoubra El Kheima. His yarn goes into the production of upholstery, cover-lits, jeans, and other textiles.

Expansion into Ring Spinning. He has added two floors to his factory to do ring yarn spinning. He has bought used machinery from Germany. There will be five machines, each with 500 spindles, for a total of 2500 spindles. He has also acquired second-hand ventilation and air-conditioning equipment for use in the ring spinning operation. This will allow him to suck in dust, dirt and loose fibers and pump out cleaner, cooler air of relatively constant humidity.

He is hoping to begin ring spinning in early 2001 to produce higher counts demanded by his customers in Egypt. He claims that there is sufficient demand. He gets requests for NE 20, 24, 36, 40 yarn. He will start buying Gizas 85 and 86 to produce ring yarn. *The fact that he is willing to take the risk of going into more demanding ring spinning is a positive sign*. He is optimistic about the future of the Egyptian spinning industry, despite the current domestic market saturation. He also thinks that he can produce better quality yarn than his competitors, particularly public sector mills, although some industry experts are skeptical of this.

Influence of Policy Reform. It is hard to point to one particular reform or group of reforms that encouraged him to invest, but the whole Egyptian climate for investment has improved. Furthermore, globalization of markets and trade reform are leading to greater economic integration (worldwide) and market opportunities. World and domestic markets are evolving in positive ways, which encourage private investors. Broad changes in liberalization of the cotton subsector have made a difference. Although he buys his lint from a public trading company, he does this by choice and has established a good business relationship with the chairman of that company. He feels he gets good quality lint. When he began in 1995, he had to go to the Holding Company for Cotton and International Trade to get access to lint. Lint was allocated by committee to spinners; this does not apply now. One can buy lint from anyone.

Changes in the public spinning industry have also created opportunities. As the public companies face big problems, many of them have accumulated inventories, cut back on the number of shifts, and reduced output. Some public companies are more carefully considering leasing out one or more of their plants as well. As public companies produce less yarn, private companies can make up the slack. Mr. Bassiouni has no interest in buying or leasing a public company; he feels that you buy problems with a bloated work force that does not have a good work ethic.

Taxes and Duties. When he sells yarn, he charges 18% sales tax, which he thinks is excessive. There is also a commercial profits tax equivalent to 1-2%, which is also paid by customers. Mr. Bassiouni thinks that the tax on imported yarn may be 10% (sales tax) plus other taxes of 20% (import taxes in fact equal

30%). He feels the tax burden is excessive, especially given the high cost of Egyptian lint (as raw material) and the increasing competitiveness of international and domestic markets.

4. PRODUCTIVE CAPACITY AND PRODUCT MIX

This chapter discusses the differing productive capacities, by category of private spinner, as well as each category's output, sales, and product mix. It also reports on private spinners' plans to expand and how different categories of spinners plan to expand.

4.1 Productive Capacity

Three of the privatized spinning companies operate multiple units. Unirab has several spinning units. Alexandria S&W has three spinning units. Minya El Kamh has three spinning units at one plant. DIP Egypt and El Alamia operate one plant each. The other spinning companies under review generally operate one plant each.

Monthly production capacity varies greatly by type of spinning company, as shown below in Table 4-1. Privatized ring spinners have a much larger productive capacity than all other types of spinners. The spinners who twist yarn can process larger quantities per day than the ring spinners and open-end spinners, because these three companies perform only one final operation in a multi-step spinning process.

Table 4-1: Monthly Productive Capacity in Private Spinning

Spinner Type	Aver. No. Spindles	Ring Yarn Output			Open-end Yarn Output		
		N	Mean, mt	Total, mt	N	Mean, mt	Total, mt
Privatized Companies	97,792	4	949.8	3799.2	2	59.5	119
Ring Spinners (all operations)	16400	2	110.5	221	1	13	13
Twisters	4060	3	302	906			
Open-end	2275.8				13	137.8	1791
Fowah Sample	80.5	12	19.3	231			
Average Mo. Output		21	245.6	5157	15	128.2	1923

Note: One privatized spinner does open-end spinning only; a second one does mainly ring spinning (94.9% of the company's total output). Spinning in Fowah is technically ring spinning, although the yarn is coarse and the counts are low.

The Fowah sample units have a much lower capacity than the other private spinners. The population of 120 spinning companies in Fowah can be classified according to the number of production lines as follows:

- 100 companies operate two production lines;
- 15 companies operate three production lines; and,
- 5 companies operate one production line.

Hence, 83 percent of the spinners operate two production lines. Production lines generally consist of 38 spindles and can produce an average of 3.7 tons of yarn per day.

4.2 Overall Output and Sales

Table 4-2 shows the total output, total value of output, and average value of output per mt of the surveyed spinning companies over a ten-year period, beginning in 1989/90. Table 4-3 shows the average output and value of output for firms of each category over the same period. The figures should be interpreted with caution, given the long recall period and the fact that the overall production data do not distinguish between pure cotton yarn and blends, or among yarn counts. Nevertheless, the orders of magnitude and direction of change are illustrative.

Total yarn output rose for each category over this period, reflecting the coming on stream of new companies and generally higher average output per firm over most of the period. Output per firm declined for the privatized spinners from 1996/97 to 1998/99, as new entrants (lessees) were smaller than the earlier reporting companies (Unirab and Alexandria S&W). Output per firm remained roughly the same for ring spinners (twisters only) over the 1994/95 through 1998/99 period. With the addition of a second ring spinner in 1998/99, average output per firm dropped, as the second firm began its operations at a substantially lower production level than the first firm, established in 1989.

Over the ten-year period, the nominal LE value of yarn output per mt also rose steadily to 1997/98 but fell in 1998/99, except for ring spinners. The value of yarn produced by privatized spinners remained in the same range, LE 11,900 to LE 13,000 per mt, over the five-year period 1994/95 to 1998/99. It fell off 8.6% in 1998/99 relative to 1997/98. The decrease in the average value per ton was modest for open-end spinners and Fowah sample spinners in 1998/99 relative to 1997/98. It rose gradually from 1989/90 to 1997/98 for yarn produced by ring spinners, and then increased 25% from 1997/98 to 1998/99, due to the start-up of a new ring spinner that spins high counts of yarn (which command high prices per mt).

While the average value of output increased per firm over the ten-year period for three of the four categories, it rose steadily from 1989/90 to 1996/97 before decreasing sharply for the privatized companies. This was due partly to decreases in TCF minimum yarn prices, which were followed by the two largest producers in this category. TCF minimum prices were lowered after 1997, because world market prices for yarn declined following the Southeast Asian financial crisis and subsequent currency devaluations. It was also due to lower average output per privatized company among the newcomers, who operated on a smaller scale of production. The fact that the 1998/99 data included some open-end yarn also pulled the average value of output per privatized firm down.

There is some evidence that privatization of several spinning companies has led to an improvement in the quality of yarn output. Alexandria S & W reports that average yarn counts

Table 4-2 : Total Output and Value of Output, 1989/90 to 1998/99, by Firm Type

Year	Privatized Company				Other Private Sector Spinners												Sample Fowah Spinners			
	N	Ring Yarn			N	Ring Yarn Spinners			N	Ring Yarn Twisters			N	Open-end Spinners			Coarse Fowah Yarn			
		mt	000 LE	LE/mt		mt	000 LE	LE/mt		mt	000 LE	LE/mt		mt	000 LE	LE/mt	N	mt	000 LE	LE/mt
1989/90	1	11,612	90726	7,813	1	312	2,028	6,500	2	1,392	5,748	4,129	2	1,180	7,910	6,703	3	230	461	2003
1990/91	1	13,508	103,326	7,649	1	468	3,042	6,500	2	1,752	10,044	5,733	2	1,180	7,910	6,703	3	230	461	2003
1991/92	1	12800	120,645	9,425	1	624	4,212	6,750	2	1,752	11,484	6,555	3	1,680	11,850	7,054	4	309	856	2,769
1992/93	1	12900	113,443	8,794	1	936	6,365	6,800	2	2,112	14,066	6,660	3	1,730	12,310	7,115	5	602	1,768	2,937
1993/94	1	12,738	124,996	9,813	1	1,092	7,644	7,000	2	2,112	15,898	7,527	3	1,780	12,848	7,218	5	689	2,097	3,043
1994/95	1	12,962	162,087	12,505	1	1,248	8,986	7,200	3	9,072	67,320	7,421	3	1,780	13,040	7,326	9	1,572	5,533	3,520
1995/96	2	30,209	378,708	12,536	1	1,404	10,530	7,500	3	9,072	69,372	7,647	3	1,760	13,050	7,415	10	1,719	6,227	3,622
1996/97	2	31,834	411,734	12,934	1	1,560	12,168	7,800	3	9,792	81,360	8,309	3	2560	19,696	7,694	12	1,953	7,267	3,721
1997/98	3	36,040	468,372	12,996	1	1,716	13,728	8,000	3	9,792	87,566	8,943	4	2,832	23,412	8,267	12	1,965	7,910	4,025
1998/99	5	43,121	512,295	11,880	2	2,184	21,840	10,000	3	10872	107784	9,914	12	13,582	109,247	8,044	12	2,808	11,278	4016

Note: 1) Total value and value per mt are in nominal terms. Inflation and exchange rate depreciation were significant during the early to mid-1990s.
2) The value of ring yarn twisted represents the full value of yarn that has been spun, prior to twisting, by other companies. The twisters are doing one last step in the spinning process; hence, the value that they add is quite small.

Table 4-3: Average Output and Value by Firm Type, 1989/90 to 1998/99

	Privatized		Ring Yarn		Ring Twisters		Open-end Yarn		Fowah	
	mt	000 LE	mt	000 LE	mt	000 LE	mt	000 LE	mt	000 LE
1989/90	11,612	90,726	312	2,028	696	2,874	590	3,955	77	154
1990/91	13,508	103,326	468	3,042	876	5,022	590	3,955	77	154
1991/92	12,800	120,645	624	4,212	876	5,742	560	3,950	77	214
1992/93	12,900	113,443	936	6,365	1,056	7,033	577	4,103	120	354
1993/94	12,738	124,996	1,092	7,644	1,056	7,949	593	4,283	138	419
1994/95	12,962	162,087	1,248	8,986	3,024	22,440	593	4,347	175	615
1995/96	15,105	189,354	1,404	10,530	3,024	23,124	587	4,350	172	623
1996/97	15,917	205,867	1,560	12,168	3,264	27,120	853	6,565	163	606
1997/98	12,013	156,124	1,716	13,728	3,264	29,189	708	5853	164	659
1998/99	8,624	102,459	1,092	10,920	3,624	35,928	1,132	9104	234	940

rose from NE 22-24 in 1997/98 to 34-35 in 1999/2000. Alexandria S & W used more long-staple cotton lint in 1998/99–188,719 lint kentars, or 62% of its total lint input–than medium-long staple (111,581 lk of Giza 80/83). It was also the only privatized firm to spin ELS–4,248 lk of Giza 70. DIP Egypt has converted one ESCO spinning unit into an immaculate and well-managed facility with new equipment. DIP used large quantities of Giza 75 and 86 in 1998/99 to spin medium (NE 30-50) and high (NE >50) count yarn. Unirab used LS and MLS cotton lint as its raw material to spin medium-count yarn. Swanberg et al. (2000) report that Unirab needs to replace certain worn-out and defective equipment to ensure higher-quality yarn output.

Minya El Kamh also reports spinning medium-and higher-count yarn, using Giza 75 and 86 in significant quantities.

4.3 Product Mix

Table 4-4 provides a breakdown of yarn output by category of spinner for the 1998/99 season. The data give some feel for the types of yarn spun and the range of counts. Table 4-5 shows average sales prices for different types of yarn. Price data should be interpreted with caution, because they are for types of yarn, rather than for count ranges or specific counts.

4.3.1 100% Cotton Yarn

Many private spinning companies produce only 100% cotton yarn from Egyptian lint cotton. The 12 Fowah spinners spin yarn from mainly cotton waste. Excluding the traditional Fowah spinners from the analysis, *70% (16 of 23 firms) produce only 100% cotton yarn*. Their output represents 80% of total yarn output of the surveyed spinners and 87% of the total yarn value (sales revenue). The average value of 100% cotton yarn was LE 11,783 per mt. Privatized spinners' 100% cotton yarn sold for an

average of LE 12,304/mt, while ring spinners and open-end spinners sold their 100% cotton yarn for average prices of LE 11,360/mt and LE 9,606/mt respectively.

Table 4-4: Yarn Output and Sales Revenue, 1998/99, by Type of Yarn and Firm Category

	Privatized Spinners			Other Ring Spinners			Open-end Spinners			Fowah Sample			Total				
	N	Output (mt)	Value (000 LE)	N	Output (mt)	Value (000 LE)	N	Output (mt)	Value (000 LE)	N	Output (mt)	Value (000 LE)	N	Output (mt)	% Output	Value (000 LE)	% Value
100% Cotton Yarn	5	41,915	515,741	4	8,676	98,556	7	8,364	80,341				16	58,955	80.2%	694,638	86.8%
>= 50% Cotton Yarn	1	870	7221	1	624	4992	4	3322	26570				6	4,816	6.6%	38,783	4.8%
Cotton/Poly Blend	1	870	7,221				4	3,322	26,570				5	4,192	5.7%	33,791	4.2%
Cotton/Other Blend				1	624	4,992							1	624	0.8%	4,992	0.6%
< 50% Cotton Yarn	1	336	3,360	1	389	1,556	4	6,456	51,498	12	2,515	10,211	18	9,696	13.2%	66,625	8.3%
Cotton/Poly Blend							2	5,256	42,048				2	5,256	7.2%	42,048	5.3%
Cotton/Acrylic							1	300	2,700				1	300	0.4%	2,700	0.3%
Cotton/Other Blend	1	336	3,360	1	389	1,556	1	900	6,750	12	2,515	10,211	15	4,140	5.6%	21,877	2.7%
Total	5	43,121	526,322	5	9,689	105,104	13	18,142	158409	11	2,515	10,211	34	73,467	100.0%	800,046	100.0%
% Total		58.7%	65.8%		13.2%	13.1%		24.7%	19.8%		3.4%	1.3%					

Notes: Other ring spinners includes both twisting firms (3) and all-operation (2) ring spinners. Only 11 Fowah spinners of 12 report output. The percentages appearing in the last row show the % of total output and total value by spinning firm category. The percentages appearing in the columns on the right show the % of total output and total value represented by each type of yarn output. These percentages cut across firm categories.

Table 4-5: Average Sales Prices for Different Yarn Types, 1998/99

(LE/mt)

	Privatized Companies	Ring Spinners	Open-end Spinners	Fowah Spinners	Total
100% Cotton Yarn	12,304	11,360	9,606		11,783
>= 50% Cotton Yarn	8,300	8,000	7,998		8,053
Cotton/Poly Blend	8,300		7,998		8,061
Cotton/Other Blend		8,000			8,000
< 50% Cotton Yarn	10,000	4,000	7,977	4,060	6,871
Cotton/Poly Blend			8,000		8,000
Cotton/Acrylic			9,000		9,000
Cotton/Other Blend	10,000	4,000	7,500	4,060	5,284
Across All Categories	12,206	10,848	8,732	4,060	10,890

4.3.2 Blended Cotton/Synthetic and Wool Yarn

Spinning of blended yarn is more common among open-end spinners and traditional Fowah spinners than among the ring spinners. These spinners have a strong incentive to use cheaper synthetics in spinning in order to keep their production costs down. Many complain about the high cost of raw materials. Using cheaper raw material than Egyptian lint, including synthetics and waste, is a rational strategy for private spinners of lower-count yarn to enhance their competitiveness. Easier access to cheaper imported lint would also help those spinners. At the same time, upgrading of ring spinning companies so they consistently produce high-quality and higher-count yarn will make better (more optimal) use of Egyptian lint in domestic spinning.

87% of the 4,816 mt of blended yarn with >50% cotton was a cotton/polyester blend; 13% was cotton/other synthetic (rayon, acrylic). Four of six firms that spun blended yarn with greater than 50% cotton content were open-end spinners. This blended yarn commanded far less (31.7%) per mt than 100% cotton yarn, fetching LE 8,053/mt on average, as compared to LE 11,783/mt for 100% cotton yarn. The blended yarn (>50% cotton) sold by ring spinners (one privatized and one ring) sold for slightly higher prices on average (LE 8300/mt and LE 8000/mt) than did the blended yarn of open-end spinners (LE 7998/mt).

The surveyed spinners sold twice as much yarn with less than 50% cotton content (9,696 mt) as they sold yarn with greater than 50% content. Fifty-five percent of this was a cotton/polyester blend. Forty-two percent was cotton blended with synthetics other than acrylic, mainly rayon for spinners other than the Fowah spinners and various types of synthetic waste for the Fowah spinners. Surprisingly, the blended cotton/polyester yarn with <50% cotton fetched an average price nearly as high (LE 8000/mt) as the same cotton/poly yarn with >50% cotton content (LE 8061/mt), though the difference is not significant.

The <50% cotton yarn of the Fowah producers sold for only LE 4060/mt, well below other types of

blended yarn.[20] Extrapolating the 2,515 mt of blended cotton yarn produced by the Fowah spinners to the entire sample yields an estimated 25,150 mt of output from this industry segment. This would lead to an adjusted output total of 96,102 mt for all private spinners in 1998/99, of which 26.2% would be Fowah-spun yarn and 32,331 mt (one-third) would be blended yarn with less than 50% cotton content. The proportion of total private sector output represented by 100% cotton yarn would drop to 61.4%.

4.3.3 Weaving and Other Activities

While 80 percent of the surveyed firms are spinners only, 20 percent are also weavers. Only one privatized company weaves (Unirab S&W), as is only one of the 12 sample Fowah spinners. Six other private spinners are also weavers, including two ring spinners.

4.4 Use of the Yarn Output of Surveyed Firms

When asked what their yarn was ultimately used to make, the companies reported a variety of end uses. As shown in Table 4-6, the yarn from Fowah spinning enterprises is used to make carpets (10 of 12) and blankets (all 12 firms). The yarn of the privatized companies is used to make 100% cotton cloth and blended synthetic/cotton cloth, as well as a variety of other textile products—bedsheets, upholstery, cover-lits, and denim.

Table 4-6: Use of Woven Cloth by Companies Surveyed, 1998/99

How Cloth Used	Privatized Firms	Firms in Fowah	Other Private Spinners		Total	% Total
			Ring	Open-end		
# Firms that Weave	1	0	2	4	7	100%
% of Firm Category	20%	0%	40%	31%	20%	
100% Cotton Cloth	4	0	3	0	7	20%
Blended Cotton Cloth	2	0	1	6	9	26%
Bedsheets & HH sets	3	0	1	8	12	34%
Upholstery	2	0	2	9	13	37%
Carpets	0	10	2	3	15	43%
Blankets	0	12	0	2	14	40%
Denim	1	0	0	3	4	11%
Cover-lits	2	0	0	7	9	26%
Other Uses	1	0	0	1	2	6%

Note: Non-weavers in the sample are reporting how cloth from their yarn is used.

The yarn from the other private spinners is also used for many different purposes. The main uses of yarn from the ring spinners are production of 100% cotton cloth, upholstery and carpets. This contrasts sharply with how the yarn of open-end spinners is used. From Table 4-6, we can see that none of the

[20] One reviewer pointed out that this price was unrealistically low, equal to the price of polyester fiber before spinning.

yarn is used to make 100% cotton cloth, while nearly half (6 of 13) of the open-end spinners report that their yarn is used to make blended cloth. Over half of these spinners produce yarn that is used to make cover-lits (7 of 13), bedsheets (8) and upholstery (9). Other uses such as for carpets, kilims, blankets and denim are reported far less frequently (three cases or less).

What is likely going on here is that the ring spinners are producing largely 100% cotton yarn that is woven into 100% cotton cloth or used in making quality upholstery. The coarser, lower-count yarn of the open-end spinners is used to make blended fabric, medium-quality bedsheets and cover-lits, carpets and lower-quality upholstery.

4.5 Spinners' Expansion Plans

As of mid-1999, *19 of 35 spinning companies had expansion plans. The type of firm with the greatest proportion of firms wishing to expand is ring spinners in the private ring spinners category*, where 80% intend to expand (see Table 4-7). The lowest proportion is for traditional Fowah spinners, where only 42% plan to expand. Firms in Fowah tend to expand by adding additional (and identical) production lines, and keeping the same scale of management. Expansion in traditional spinning also occurs through replication, i.e., creating new enterprises that copy existing ones (and operate on a similar small scale). Table 4-7 shows how these 19 spinners planning expansion intend to increase productive capacity. The largest proportion, 89%,

Table 4-7: How Spinners with Expansion Plans Intend to Increase Productive Capacity

How Plan to Increase Productive Capacity	Privatized Firms	Firms in Fowah	Other Private Spinners		Total	% Firms Planning Expansion
			Ring	Open-end		
No. of Firms that Plan to Expand	3	5	4	7	19	100%
Percentage of Firm Category	60%	42%	80%	54%	51%	
Invest in New Machinery	2	5	4	6	16	84%
Lease Machinery to Increase Production	0	0	0	0	0	0%
Plan to Add One or More Shifts	0	0	1	2	5	26%
Plan to Repair Broken Down Machines	1	0	0	1	2	11%
Plan to Hire Additional Technical Workers	2	2	1	1	5	26%
Building a New Plant	0	0	1	0	1	5%

Notes: The ring spinner who reported he was building a new plant is making this investment with a Chinese company. Only those firms with expansion plans responded to the question about how to increase production.

will invest in new machinery. Less commonly, 37% of those spinners will add another shift at their existing operation and/or hire more factory workers, rather than investing in new machinery.[21] Only two firms intend to repair broken-down machinery.

Table 4-8 also shows that the evidence for these expansion plans is most commonly purchase of land to build a new plant (32%) and construction of a new building (32%). Fewer spinners (21%) already have additional, unused floor space that can be used to install new machines or have received a bank loan (11%) to expand their operations.

Additional evidence of private spinning companies' expansion plans is provided by their hiring intentions. *Half (18 of 35) of the surveyed companies revealed that they planned to hire, by the end of 1999, an estimated 429 new workers,* 3.5% of the May 1999 labor force. This includes the following estimated hires by spinning company type:

- two privatized firms, who planned to hire 60 and 40 new workers respectively
- six sample Fowah companies that planned to hire 55 additional workers (9.2 per hiring firm)
- all five ring spinning companies, who planned to hire 84 new workers (16.8 per firm)
- 5 of 13 open-end spinners, who planned to hire 190 new workers (38 per hiring firm).

Extrapolating planned hiring by the sample Fowah companies to the entire population of spinners in Fowah (120) gives an estimated total of 550 new workers who would be hired by all the Fowah spinners and 924 workers by the Fowah spinners plus other private firms.

Table 4-8: Expansion Plans of Companies Surveyed and Evidence of Plans

Type of Evidence	Privatized Firms	Firms in Fowah	Other Private		Total	% Firms Planning Expansion
			Ring	Open-end		
No. of Firms that Plan to	3	5	4	7	19	100%
Percentage of Firm Category	60%	42%	80%	54%	54%	
Additional Floor Space for More Machines	0	0	0	2	2	11%
Land Purchased to Build New Plant	0	1	3	1	5	26%
New Building(s) Constructed	1	2	0	3	6	32%
Company Received a Bank Loan	0	1	1	0	2	11%

[21] Six firms intend to hire additional workers. Three intend to add another shift. Two of those latter three firms also intend to hire more workers.

Store Rooms Can Be Used to	1	0	2	1	4	21%

5. RAW MATERIAL INPUTS

5.1 Raw Material Cost as a Proportion of the Value of Yarn Output

Raw material represents the largest item among operating costs for Egyptian spinning mills. Table 5-1 shows that *raw material represents, on average, 51.8% of spinners' estimated operating costs.*

Table 5-1: Range of Costs that Raw Material Represents as Percentage of Value of 100% Cotton Yarn Output, by Company Type

Company Type	Mean % Costs	Minimum % Costs	Maximum % Costs
Privatized Companies	56.6%	46.0%	65.0%
Traditional Fowah	51.0%	50.0%	55.0%
Ring Spinners	51.9%	35.0%	65.0%
Open-end Spinners	50.3%	26.6%	67.0%
All Companies	51.8%	26.6%	67.0%

Open-end spinners report the greatest range of percentage cost represented by raw material— 26.6% to 67.0%. This is because some open-end spinners use cheaper waste, while others use relatively expensive Gizas 80 and 83, purchased as lint. The raw material costs also made up 60.5% of the value of output in blended yarn.

5.2 Use of Lint Cotton

Table 5-2 shows purchases of lint cotton and waste by each type of private spinner in 1998/99. The Egyptian cotton varieties are not completely disaggregated, reflecting spinner recall problems over the period of one year.[22] The category "other long-staple" includes any LS variety other than Giza 80 and 83. The category "mixed long-staple" includes Gizas 80, 83, 85, 86 and 75. Hence, the number of buyers of Giza 80 and 83 only does not include all the buyers of Giza 80 and 83. All five of the privatized companies actually bought Gizas 80 and 83, three ring spinners did, and and ten open-end spinners did. Hence, the row "Giza 80 & 83" does not show the total quantity of those varieties purchased by the different types of firms. Nevertheless, Table 5-2 does show total Egyptian LS purchases and the average price paid per ton and per kentar, as well as the same for ELS purchases and purchases of waste.

[22] The lint and waste purchase data should be interpreted with caution and are indicative only.

Table 5-2: Private Spinners' Purchases of Lint & Waste, 1998/99, by Spinner Type

Raw Material	Privatized Spinners					Ring Spinners (all Operations)				
	No. Buyers N	Total Volume mt	Aver. Vol. mt	Average Price LE/mt	LE/lk	No. Buyers N	Total Volume mt	Aver. Vol. mt	Average Price LE/mt	LE/lk
Giza 80 & 83 (only)	2	16,829	3,366	5,407	270	0				
Other Long-Staple	1	9,186	1,837	6,043	302	0				
Mixed LS (many types)	4	25,242	5,048	5,412	271	1	365	183	5,100	255
Subtotal LS	5	51,257	10,251	5,523	276	1	365	183	5,100	255
Giza 70 & 77	1	212	42	7,620	381	1	800	400	7,500	375
Total Egyptian Lint	5	51,469	10,294	5,532	277	2	1,165	583	6,748	337
Sudanese Lint						1	2,100	1,050	4,500	225
Total Lint	5	51,469	10,294	5,532	277	5	3,265	1,633	5,302	265

Raw Material	Ring Spinners (Twisters)					Open-end Spinners				
	No. Buyers N	Total Volume mt	Aver. Vol. mt	Average Price LE/mt	LE/lk	No. Buyers N	Total Volume mt	Aver. Vol. mt	Average Price LE/mt	LE/lk
Giza 80 & 83 (only)	1	6,480		5,200	260	8	10,248	1,281	5,100	255
Mixed LS (many types)	1	4,350		5,200	260	2	272	136	3,850	193
Subtotal LS	2	10,830	5,415	5,200	260	10	10,520	1,052	5,068	253
Giza 70 & 77	1	2,250		7,500	375					
Total Egyptian Lint	3	13,080	4,360	5,596	280	10	10,520	809	4,850	243
Sudanese Lint						1	60			
Waste	0					5	6,300	485	2,700	135
Total Raw Material	3	13,080	4,360	5,596	280	13	16,880	1,298	4,133	207

Raw Material	Fowah Spinners					TOTALS				
	No. Buyers N	Total Volume mt	Aver. Vol. mt	Average Price LE/mt	LE/lk	No. Buyers N	Total Volume mt	Aver. Vol. mt	Average Price LE/mt	LE/lk
Giza 80 & 83 (only)						10	33,557	3,356	5,273	264
Other Long-Staple						1	9,186	9,186	6,043	302
Mixed LS (many types)						8	30,229	3,779	5,364	268
Subtotal LS						19	72,972	3,841	5,408	270
Giza 70 & 77						3	3,262	1,087	7,508	375
Total Egyptian Lint						17	76,234	4,484	5,497	275
Sudanese Lint						2	2,160	1,080	4,500	225
Waste	12	3,386	282	1,983	99	17	9,686	570	2,449	122
Total Lint						35	88,080	2,517	5,138	257

Notes: 1) Respondents were unable to disaggregate varietal purchases, so they grouped varieties in responses.
2) Other Long-Staple means LS varieties other than Gizas 80 & 83. This category includes Gizas 85, 86, 89 and 75. Mixed LS varieties means Gizas 80 or 83 plus any of the other LS varieties.

3) Average volume is calculated across the total number of surveyed companies in each of the categories.

The privatized spinners bought the largest quantity of Egyptian cotton lint, 51,469 mt or 67.5% of the 76,234 mt of lint purchased by all the surveyed spinners. Ring spinners bought 14,245 mt and open-end spinners bought 10,520 mt.[23] Only two spinners, one ring spinner (Giza S&W) and one open-end spinner, bought 2,160 mt of Sudanese lint cotton. Giza S&W purchased 2,100 mt of Sudanese cotton at a cost of LE 4,500/mt or LE 225/lint kentar, 16.8% below the average cost of Egyptian long-staple cotton bought by ring spinners (LE 260/kentar). The privatized spinners paid more per unit for Egyptian long-staple cotton lint (LE 276/kentar) than the ring spinners (LE 260/kt.) and open-end spinners (LE 243/kt.). This is due largely to the fact that *the privatized spinners bought relatively more (no more than 66.9%) of the better long-staple cottons, including Gizas 85, 86, 89 and 75, than did the ring spinners (no more than 33.1%) and the open-end spinners (2.7%), who bought almost exclusively Gizas 80 & 83.* It may also be due in part to purchases of higher-grades of long-staple lint by privatized spinners than the other two types of spinners.

Alexandria S & W, bought only 212 mt of extra long-staple cotton, only 0.4% of their total lint cotton purchases by privatized spinners. Ring spinners bought 3,050 mt of ELS, 21.4% of their purchases of Egyptian lint cotton and 18.7% of their overall lint purchases (including Sudanese). This higher proportion of ELS purchases is because ring spinners produce the highest counts of yarn of all the private sector spinners.[24]

Nearly all (>97.3%) of the lint cotton used by open-end spinners was Giza 80 and 83.[25] Open-end spinners also used significant quantities of waste, 6,300 mt or 37.5% of their total raw material. Use of waste helps to keep costs down. Waste was far cheaper (LE 2700/mt) than lint cotton (LE 4850/mt on average, across all varieties purchased).

5.3 Use of Waste

As noted above, *waste is an important input into open-end spinning. Five open-end spinners used 6,300 mt in 1998/99, an average of 1,260 mt per firm.* All the Fowah spinners use entirely waste. This waste comes from ginning, spinning, weaving, and RMG operations of other companies, typically public sector spinning companies, as well as from imports from different sources. The waste used by spinners in Fowah is available during the whole year, whether it is imported or from the domestic market.

There are restrictions on importing cotton waste, as it might have diseases that affect the quality of Egyptian cotton. Cotton waste is subject to MALR phyto-sanitary controls and inspections. This

[23] Note that three ring spinners, who do only the twisting operation, report having bought 13,080 mt of the 14,245 mt of Egyptian lint cotton purchased by all ring spinners.

[24] Note, however, that one of the privatized spinning companies, Alexandria S&W, has raised its average yarn count from the 20s in 1997/98 to NE 34-35 in 1999/2000.

[25] If half of the mixed LS used by open-end spinners was Gizas 80 and 83 in 1998/99, 98.7% of the lint they used was Gizas 80/83.

cotton waste comes from ginning or spinning (carding and combing) operations. Importing other types of waste, from the weaving, knitting or RMG stages of production, is straightforward and not subject to any restrictions. Two open-end spinners use imported waste, because they cannot always get Egyptian lint cotton when they need it. A third open-end spinner plans to import cotton waste (when given permission to do so).

The waste used by open-end spinners in 1998/99 cost only an average of LE 2,700/mt. In combination with Egyptian lint cotton, this helped to keep their average cost of raw material down to LE 4,133/mt, well below the average lint cost of LE 5,532/mt for privatized spinners and LE 5,833/mt for ring spinners. Keeping raw material costs down is understandable for open-end spinners, because their low-count yarn outputs are worth much less than the ring yarn produced by the ring spinners (all but 156 mt, which is open-end yarn) and the privatized companies (only 5.0% open-end yarn). The average cost of waste used by Fowah spinners is even lower at LE 1,983/mt, 26.5% lower than the average cost of waste used by open-end spinners. This waste is so cheap, because it must allow for high trash content.

If the findings of the ten sample spinners in Fowah are extrapolated to the estimated population of 120 companies, purchases and use of waste would equal 33,860 mt. This volume of raw material input is larger than the total raw material used by both the ring and open-end spinners (33,165 mt). The ability of these traditional spinners to convert this volume of waste into usable carpets, blankets, kilims, cover-lits, etc. is an impressive achievement. Adding this volume (33,165 mt) to the waste used by the open-end spinners (6,300 mt) yields 39,465 mt of waste processed by a large proportion of the private spinning industry in Egypt, representing 28.6% of the industry input.[26]

5.4 Spinner Purchases of Seed Cotton

As of July 2000, 16 spinning companies had become registered seed cotton buyers. Three of these registered companies are private spinners: Alexandria S & W , Unirab, and Giza S & W. Spinners' purchases of seed cotton can be viewed in two ways. First, it can be seen as positive evidence of liberalization, because spinners actively try to acquire lint and integrate backward. Second, it can be viewed as evidence of an imperfect market, where spinners, particularly private ones, must buy seed cotton in order to assure adequate supplies of lint. In such an imperfect market, spinners can not rely on trading companies to supply them with lint.

Prior to the 2000/01 cotton marketing season, private spinners did not buy Egyptian seed cotton and have it ginned for their own use. In 1999/2000, four public spinning companies did buy seed cotton at 51 sales rings, 6% of the total number of rings (see Krenz and Mostafa, 2000). These companies included Misr-Iran, a joint investment company, as well as three public sector spinning companies (Misr-Mehalla, Dakalia Spinning and Weaving, Delta Spinning and Weaving). The four companies purchased 158,042 seed kentars, of which 58.1% was Giza 85 and Giza 86. All four companies entered into an agreement with the Delta Ginning Company to gin their seed cotton.

[26] These figures and proportions do not include the raw material usage of other small-scale, traditional spinning firms in other locations, such as Sohag, Mehalla, Rashid and Assiut.

In 2000/2001, spinning companies were allocated 82 sales rings by the Cotton Supervisory Committee, nearly 10% of the rings. Thirteen are run by three private spinners, including Alexandria Spinning and Weaving (1 ring), Unirab (7 rings), and Giza Spinning and Weaving Company (5 rings). These rings cover 4,601 cotton producing feddans which means that about 25-28,000 seed kentars could be delivered to private spinners' sales rings. This will meet only a fraction of those companies needs, which were 637,843 lint kentars for Alexandria Spinning and Weaving and Unirab for the first three quarters of the 1999/2000 season (equivalent to some 733,000 seed kentars). The same three public spinning companies that purchased seed cotton from sales rings in 1999/2000 are also buying it from PBDAC-run rings in 2000/01. In addition, there are three new public sector buyers: STIA, Sharkeya for Linen, and Shebin El Kom Spinning and Weaving Company. The public spinning companies have 57 sales rings, Misr Iran also has 12 rings.

In years of small seed cotton crops in Egypt, such as 2000/01, one would expect to see more public and private spinners buying seed cotton in order to ensure access to lint cotton. *Private spinners, other than the largest companies, will likely not have easy access to cotton lint bought by public sector trading and ginning companies or imported by the Holding Company. Many may have to obtain their lint from private importers selling Sudanese and Syrian cotton.*

6. OUTPUT SALES

This chapter examines private spinners' sales in both domestic and export markets, by firm category and yarn type. Table 6-1 shows the quantities of yarn produced and sold by spinning company type in the domestic and export markets. *Note that the privatized spinners produce 55.8% of the yarn spun by the surveyed private companies.* The ring spinners (17.5%) and the open-end spinners (23.1%) produce roughly the same amounts, and the traditional spinners of Fowah spun much less (3.6%). Note, however, that if the Fowah sample results (12 of 120 firms) are extrapolated to the general population of private spinners, Fowah spinners produced 28,080 mt of yarn in 1998/99 or 27.4% of an expanded total of 102,551 mt of yarn.

6.1 Domestic Market Sales (to third parties)

Most of the yarn, 76.2%, produced by the surveyed companies is sold in the domestic market. Most of these sales are to private weavers located in Mehalla el-Kobra, Borg el Arab, 10th of Ramadan, 6th of October, and other industrial zones. Very little, if any, of the yarn is sold to public sector textile companies.

While all of the Fowah spinners' yarn and nearly all (92.6%) of the yarn of open-end spinners are sold in the domestic market, lower proportions of the output of ring spinners (79.5%) and privatized spinning companies (68.5%) are sold domestically. Note that 80% of the open-end yarn of Unirab and 100% of the open-end yarn of Al Alamia is sold domestically. Egyptian International for Investments, an open-end spinner, exports 1,000 mt or half of its open-end production, and sells half of it in the domestic market.

6.2 Intra-Firm Transfers (to weaving or knitting operation)

Seven firms reported doing weaving. Much of the yarn they spin is, therefore, transferred directly to their weaving units. Some other yarn is sold to other weavers or knitters in places such as Mehalla El Kobra. Also Alexandria S & W sells much of its yarn to KABO, as both enterprises are majority owned and controlled by the same group.[27]

6.3 Export Market Sales

Only seven of the surveyed spinning companies export yarn, including 3 privatized companies, 3 ring yarn spinners, and 1 open-end spinner (see Table 6-2 for details). Privatized spinners exported 31.4% of their total output, while the ring spinners exported 23.2% of their total output. The three privatized spinners include Alexandria S&W, which exports 20% of its total output (2,471 mt), all as 100% cotton yarn, whose average value was LE 15,742/mt of NE 30-50 count yarn. Unirab exported half of its ring yarn output (10,140 mt) in 1998/99, which was 100% cotton

[27] The purchase of a controlling interest of Alexandria S & W by the Riad Group followed the KABO purchase. This was a strategic investment to secure a high quality yarn supply for KABO.

Table 6-1: Private Spinner Sales to the Domestic and Export Markets, 1998/99

Spinner Type	Total # Cases	Mean Output (mt)	Total Output (mt)	% Total Output	Domestic Market				Export Market			
					Dom. Output	% of Total	No. Cases	Mean Quantity	Export Output	% of Total	No. Cases	Mean Quantity
Privatized Spinners	5	8,624	43,121	59.4%	29,542	68.5%	5	5,908	13,579	31.5%	3	4,526
Fowah Traditional	12	234	2,808	3.9%	2,808	100.0%	12	234	0	0.0%	0	
Other Ring Spinner	5	2,611	13,056	18.0%	10,380	79.5%	4	2,595	2,676	20.5%	3	892
Other Open-End Sp.	12	1,132	13,582	18.7%	12,582	92.6%	12	1,049	1,000	7.4%	1	1,000
Total Cases & Output	34	72,567	72,567	100.0%	55,312	76.2%	33	1,752	17,255	24.4%	7	2,532

Table 6-2: Yarn Exports by Private Firm, 1998/99

(output & exports in mt; prices in LE/mt)

Yarn Type	Company Name	Total Yarn Output	Total Exports	% Output Exported	% Exports 100% Cotton	Count Ranges for 100% Cotton	% Exports Blended	Count Ranges for Blended Cotton	Aver. Price Rcvd for 100% Cotton	Aver. Price Rcvd for Blended Cotton
Ring	Alcan Manai	624	624	100%	100%	More than 50	0%		21,000	
	10th Ramadan for S&W	5,400	1,080	20%	100%	Less than 30	0%		15,000	
	Al Maidani for S&W	3,600	1,440	40%	100%	From 30 to 50	0%		15,000	
	Alexandria for S&W	12,357	2,471	20%	100%	From 30 to 50	0%		15,742	
	Unirab	20,280	10,140	50%	0%		100%	< 30, 30-50		14,000
	DIP Egypt	1,400	750	50%	100%	< 30, 30-50, > 50	0%		13,700	
	Subtotal Ring	43,661	16,455	37.7%	38%		62%		15,739	14,000
Open-end	Unirab	1,092	218	20%	100%	6-10, 10-16, >16	0%		9,000	
100%	Egyptian Intl. Comp.	2,000	1,000	50%	0%		100%	6-10, 10-16, >16		7,000
Waste	for Investments									
	Subtotal Open-end	3,092	1,218	39.4%	18%		82%		9,000	7,000
TOTAL		**46,753**	**17,674**	**37.8%**					**15,514**	**13,372**

Note: Unirab's exports of ring yarn are all blended yarn, but the proportion of polyester used is very small (2%). This yarn can be considered as 100% cotton yarn for practical purposes.

yarn that fell in the under 30 and 30-50 count ranges, and was valued at LE 14,000/mt.[28] Unirab also exported 20% (218 mt) of its much lower output of open-end yarn, which was 100% cotton. Predictably, this was worth far less (LE 9,000/mt) than the ring yarn it exported. DIP Egypt exported 750 mt of 100% cotton yarn, 54% of its output, at an average price of LE 13,700/mt.

Of the three ring spinners who exported ring yarn in 1998/99, only one firm, Alcan Manai, exported all of its output. This was 100% combed cotton yarn of counts above NE 50, valued at an average of LE 21,000/mt. The other two spinners were twisters, who exported 20% (10th of Ramadan for S&W) and 40% (Al Maidani for S&W) respectively, valued at an average of LE 15,000/mt of 100% cotton yarn.[29]

The open-end spinner is a joint venture company in the Borg El Arab Free Zone, near Alexandria.

Two of the privatized spinners use commission agents in foreign markets, while none of the other private spinners who export do. One of the other ring spinners depends on its foreign joint venture partner to sell in international markets.

Six of the 7 exporters are actively involved with TCF (one ring yarn spinner is not). Six of 7 exporters report selling yarn at the minimum TCF export prices, while one open-end yarn exporter does not. Six of 7 exporters also have sales or marketing departments; only the open-end yarn exporter does not, probably because his joint venture partner does the marketing.

Three privatized spinners have quota shares, allocated by TCF, while the other private spinners do not. One of the privatized spinners who exports, DIP Egypt, applied for a TCF quota in 1997 and obtained a quota share in 1998 to export 1,500 mt of yarn to EU countries, particularly Italy, Spain, and Germany. DIP shipped 750 mt of yarn to these countries in 1998, achieving half of its quota. As a result of this shortfall, DIP reported facing problems in getting a share of the EU quota in 1999.[30] This should not have been a problem, as TCF quotas have not been filled in the past several years and will not likely be filled through 2000/01, following two successive short cotton crops (in 1999 and 2000), leading to tight lint supplies.

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[28] This relatively high price per mt reflects the fact that the blended yarn is almost entirely cotton (98%). Hence, this yarn can be considered as virtually 100% cotton yarn, commanding a similar price.

[29] Note that the count ranges reported by the two twisters are different: under 30 for 10th of Ramadan S&W and NE 30-50 for Al Maidani. It appears surprising, therefore, that the reported yarn prices are the same for substantially different count ranges. Variables other than count which affect price are whether the cotton is carded or combed, and whether the yarn is single or double ply.

[30] TCF allocates quotas based in large part on the past performance of companies in meeting their quota allocations. If a spinning company falls short of its allocation in one year, the quota allocation used to be cut back in the following year. As quotas have not been filled in recent years, obtaining a quota share should not be a problem for any interested exporting spinning company.

The privatized spinners export to the U.S. (1), the EU countries (3 firms), Southeast Asia (1) and Turkey (1). The other private sector ring yarn spinners export yarn with counts NE 30-50 and > 50 to Italy (2 firms), Saudi Arabia (2 firms), and Japan, Spain and Germany (1 firm to each). The one open-end yarn spinner that exports ships a wide range of counts (NE 6-10, 10-16, and > 16) to Italy, Turkey and Saudi Arabia. The spinners that export characterized both domestic and foreign demand for yarn as moderately strong (but not very strong). This rather unenthusiastic appraisal of the market is a function, however, of fixed minimum yarn export prices that are set at levels that make Egypt less competitive than a number of foreign spinners (in Pakistan, India, Indonesia, Turkey, and Syria, e.g.).

Exporters (and some responding non-exporters) obtain information about international export markets and prices from several sources:

- TCF quarterly bulletins (3 privatized spinners; all 5 ring yarn spinners; 2 open-end)
- ETMF publications (3 privatized spinners; 2 ring yarn spinners; 1 open-end)
- Cotton Outlook (1 privatized spinner; 2 open-end spinners)

Other sources of information include other world textile industry magazines, bulletins and reports.

7. FACTORY OPERATIONS AND EQUIPMENT

7.1 Shifts during Different Periods of Year

Spinning is a continuous activity, where input levels and output tend to be relatively constant from month to month. During the hottest summer months, production may slow down a little (a shift may be removed), as workers take summer leave and as lint input supplies may be somewhat short in some years. In 1998/99, some public sector spinners significantly reduced their raw material purchases[31] and their output during the spring and summer. This had more to do with weak domestic and foreign markets than with lint availability or other factors. The privatized, ring spinning and open-end spinning companies in this survey probably operated at levels similar to the rest of the year.[32]

As shown earlier in Table 4-1, privatized spinners report operating three shifts per day and running 27.2 days per month (nearly full capacity utilization). There are an average of 643 workers per shift. Ring spinners report operating 2.8 shifts per day, 27.7 workers per shift, and 27.6 days per month, again indicating high utilization. Open-end spinners operate an annual average of 2.6 shifts per day, 39.8 workers per shift, and 26.9 days per month, slightly lower utilization than the ring spinners.

Spinners in Fowah operate two shifts on two production lines during most of the year. During periods of peak demand, which fall during the cool months,[33] a third shift is often added, which pulls the annual average to 2.4 shifts per day. Nevertheless, Fowah spinners report operating 30 days a month all year. Each shift has 31.1 workers on average. Shifts in Fowah and for open-end spinners are 8.2 hours on average, slightly longer than the 8.0 hours per shift for the privatized and ring spinners. Specific worker tasks are noted in Table 7-1.

7.2 Preparatory Processes

Spinning requires significant preparation of the raw lint cotton before it can be spun into yarn. Ring spinning requires relatively more preparation, and more investment in equipment for this purpose, than does open-end spinning or spinning of waste.

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[31] In the aggregate, domestic consumption of Egyptian lint cotton in 1998/99 was 3.734 million kentars, a 19.2% decline relative to the 1997/98 level of 4.622 million kentars. Domestic consumption of lint in 1999/2000 was only 2.503 million kentars as of 30 June 2000, according to CIT-HC figures; final consumption might only be 3.0-3.25 million kentars for the full year. The principal factor behind these declines, particularly the 1998/99 decline, has been decreasing use of lint by public sector domestic spinners.

[32] Most of the companies were surveyed in May 1999; hence, their production year was more like the GOE and public companies' financial year (1 July 1998-30 June 1999).

[33] Note that the demand for some of Fowah's products, particularly blankets and cover-lits, is a seasonal (winter) demand.

Table 7-1: Numbers of Workers per Line in Sample Fowah Firms

Job Category	# Workers/Line (of 36 spindles)
Grading	4 - 6
Preparing	2 - 4
Carding	2 - 3
Condensing	2 - 3
Spinning	2 - 3
Machinist	1
Supervisor	1
Accountant	1
Security	1
Total Number/Line	**16 - 23**

7.2.1 Preparatory Processes by the Privatized and Ring Spinners

All of these spinners are ring spinners, other than Al Alameya, which does open-end spinning. Unirab and Giza S&W also do a little open-end spinning. The key steps in the process of preparing lint for spinning are as follows:

1. *Pulling off the Bale Coverings and Outer Layer of Lint.* This typically requires removing a thin outer layer of lint from each bale, as bale coverings in Egypt tend to get torn and dirt and dust penetrate the outer layer of the lint bale. Although there is no authoritative estimate for the lint lost in this dirty outer layer, most informants state that it rarely exceeds 0.5%. This waste can be resold to producers of upholstery and mattresses.

2. *Cleaning.* This is done by mechanical devices in blow rooms. The objective is to remove as much foreign matter and trash as possible. Up to 5% of the weight of the lint cotton can be lost in this process; foreign matter and trash cannot be sold for re-use.

3. *Carding.* This is designed to remove short fibers and make the remaining fibers relatively homogeneous. The waste by-product of this operation is typically 3-5% of the lint. This waste can be used by open-end spinners of waste.

4. *Combing.* This is done to ensure a high degree of homogeneity and smoothness in the fibers to be spun. Giza 70 must generally be combed, due to the heterogeneity of its fibers, to ensure good quality yarn. This step can produce significant waste–12 to 20%–which also can be sold for re-use by open-end spinners.

7.2.2 Preparatory Processes by Traditional Fowah Spinners

Although these small mills are "traditional" and lack quality control or any equipment for that purpose, they are careful in preparing the waste for spinning. The discrete steps in the process are as follows:

1. *Separating Process*. Each type and color of waste is separated, if not already done. Usually women do this as piece work at home, earning 25-30 piastres for each kilogram when they deliver the separated waste to the factory.

2. *Opening and Mechanical Cleaning*. This is done using machines mostly bought from public companies and modified by local technicians.

3. *Cleaning of Dirt and Dust.* The raw materials go through machines many times to ensure complete cleanliness.

4. *Carding*. This is done by using the carding machines. Most of these machines have been bought from public companies and modified in Fowah, with the addition of locally made straps with notched cords to card the fibers.

5. *Drawing.* This is a process to pull the slivers after being carded and to draw them into finer slivers ready for the open-end spinning process.

6. *Spinning.* Spinning is done on rotors in the middle of a cylindrical container. The rotor rotates at a certain speed containing the sliver produced by the drawing machine. Also the rotor rotates at a certain speed, and the yarn that passes above the rotor is spun and twisted at the same time, while being wound on cones (representing the final shape of the product).

7.3 Quality Control

Nearly two-thirds of the surveyed spinners (22 of 35) practice quality control and use equipment to test their yarn. All five of the privatized spinning companies have laboratories, where they can test for yarn count, strength, and neps (or the number of knots in the yarn). Three have other unspecified testing equipment. There are an average of 31 workers in quality control, only 1.4% of the average labor force of 2,167 workers.

Only one traditional spinner in Fowah has testing equipment to establish the yarn count. Among the other private sector spinners, all five of the ring spinners can test for yarn count, strength, and neps. The ring spinners have an average of five quality control personnel per company, or 3.6% of the mean labor force of 139.2 workers. Nearly all (11 of 13) open-end spinners have equipment that can perform the same tests as the ring spinners, though only 1.9 workers per company are responsible for quality control. This is only 1.8% of the average labor force of an open-end spinning company of 105.6 workers. We would expect at least double the proportion of workers in quality control in a ring spinning mill than an open-end mill, because the ring spinning is more technically demanding and requires closer, more attentive supervision.

The finding that there are workers in quality control is positive. MVE lacks the technical expertise, however, to evaluate the suitability and accuracy of the spinners' quality control equipment. Based on buyers' reports of the quality of Egyptian yarn, there is undoubtedly significant room for improvement in quality control. Buyers of Egyptian yarn report neps, and specks of foreign matter in the yarn (synthetics such as polyurethane) as common problems in Egyptian yarn.

7.4 Equipment

Nearly all of the surveyed spinning companies had machines to perform the following functions:

- cleaning (33 of 35 firms)
- mixing (31)
- carding (35)
- drawing (34)
- spinning (35)

Three-quarters of the companies (26) also reported having combing machinery, including 10 of 13 open-end spinners and 7 of 12 traditional Fowah spinners.[34] Suction equipment was less common among open-end spinners (6 of 13) and not used by Fowah spinners (except for one company). Machinery for doubling, twisting, and cone-winding was found primarily in the privatized companies and in ring spinning factories (especially doubling).

Most of the machinery was manufactured in the U.K. (42.2%), Germany (26.9%), and Italy (9.0%). Other suppliers were Japan (6.7%), Switzerland (4.9%), Egypt (4.5%), and EU countries other than the UK, Germany and Italy (4.1%). MVE suspects that the prevalence of British machinery is due to the fact that British manufacturers used to dominate the world textile machinery market before and shortly after World War II, which is no longer the case. This is also an indicator of how old some of the machinery is. All the spinning machines used by Fowah sample firms were manufactured or modified in Egypt,[35] and this was the only equipment of Egyptian origin. All the other equipment found in the surveyed spinning mills was imported. A future indicator of Egyptian spinning industry development might be the proportion of machinery manufactured locally.

The surveyed spinners did not know when over half (55.6%) of their equipment (all processes) was manufactured, reflecting the fact that a lot of machinery is purchased second-hand, particularly from public sector spinning companies. MVE does not know what proportion of this machinery was imported second-hand. Of the other 44.4% of the equipment (for which the manufacturing date was known),

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[34] These findings are not plausible, as combing is reserved for ring spinning and not used in open-end spinning.

[35] It may be that Fowah spinners do not know where their equipment was originally manufactured, since it is purchased second-hand from public companies. Fowah spinners report modifying the machinery to meet their spinning needs.

38.8% was manufactured during the 1980s, 24.4% during the first half of the 1990s (1990-1994), 9.4% from 1995 to 1997, and 10.1% in 1998 and 1999.

The fact that 41.7% of the equipment (for which manufacturing date was known) was manufactured before 1990 shows that most private Egyptian spinners use equipment that is quite old. This is due most likely to the fact that private spinners buy used equipment, wishing to keep their investment costs down, and avoiding duties on imported equipment, which are high.

7.5 Maintenance

All of the surveyed firms use their own staff to maintain their equipment. They employ technicians who develop, maintain, and repair the machinery. There appear to be no specialized machinery repair and maintenance service firms serving the textile industry. It may be possible that permanently hired technicians are needed on site to keep old equipment running long hours.

Some companies, particularly firms using older equipment, noted that there were problems in obtaining spare parts, however.

8. EMPLOYMENT AND PRODUCTIVITY

8.1 Employment Creation

The private segment of the spinning industry has generated new jobs for Egyptian workers since cotton textile liberalization began. Table 8-1 shows employment at two points in time, one year apart.[36] It shows that *1,165 new jobs were created between the beginning of May 1998 and the beginning of May 1999 in 23 spinning companies*, excluding the traditional Fowah companies (5 privatized companies, 5 ring spinners, and 13 open-end spinners). Note that 94.7% of the total workers—13,138 as of May 1999—were male.

The overwhelming predominance of male workers seems to be a surprising finding at first glance, but it may be due to the fact that the spinning units typically operate more than one shift. Women might then be asked to work a night shift or late afternoon/early evening shift that is inconvenient for married women with families who must prepare food and care for children during those hours. Not only would it be inconvenient, but it is against Egyptian law to make female workers work after sunset.

Note that employment actually declined slightly (2.7%) at Alexandria S&W from May 1998 to May 1999. This is typical of privatized companies, where there is redundant labor that can slowly be retired, typically through early retirement programs that pay out lump sums to retiring employees that are based on years of service. LE 20,000 per retiring worker was a typical sum in the late 1990s for public textile workers, equivalent to 4-6 years of a worker's salary (which depends on his last salary and years of service).

Employment in Fowah steadily increased during the 1990s. It expanded by 134 workers in the 12 sample firms from May 1998 to May 1999 from a base of 374 workers, a 36% increase. Table 8-2 shows the workers at the12 firms during the two periods and how many jobs were created by sex. Extrapolating this to the entire population of 120 firms leads to an estimated increase in the Fowah spinning labor force of 972 workers during this period.[37]

Half of all the surveyed spinning companies planned on hiring additional workers by the end of 1999, including 4 of 5 private spinners of ring yarn, 5 of 13 open-end spinners, 2 of 5 privatized spinners, and 6 of 12 traditional Fowah spinning mills.

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[36] Seventeen of the 23 spinning companies were interviewed in May 1999. Six were interviewed in November and December 1999. The latter six firms compared current employment, as of late 1999, with employment one year earlier.

[37] This extrapolation is not a simple multiplication by 10. Rather, adjustments are made for the size of the sample firms (number of production lines) and our estimate of the size breakdown of the remaining Fowah population of firms.

Table 8-1: New Jobs Generated in Private Spinning Sector According to MVE Survey

(May 1998 - May 1999)

Governorate	May 1998			May 1999			Difference		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Qalubia									
Basioutex Trade & Industry	30	10	40	30	10	40	0	0	0
DIP Egypt	165	15	180	570	30	600	405	15	420
Al Alameya (Intl. Co. for Imp. Exp. & Spin.	0	0	0	60	19	79	60	19	79
Egyptian Co. for Cotton Spinning	0	0	0	30	10	40	30	10	40
Total	**195**	**25**	**220**	**690**	**69**	**759**	**495**	**44**	**539**
Giza									
Fager Al Eslam for Spinning & Weaving	0	0	0	100	0	100	100	0	100
Giza Spinning	382	2	384	400	2	402	18	0	18
Total	**382**	**2**	**384**	**500**	**2**	**502**	**118**	**0**	**118**
Beheira									
Hassan Gaber Darwish	0	0	0	14	3	17	14	3	17
Total	**0**	**0**	**0**	**14**	**3**	**17**	**14**	**3**	**17**
Menoufia									
Alcan Mana'ai	0	0	0	96	4	100	96	4	100
Total	**0**	**0**	**0**	**96**	**4**	**100**	**96**	**4**	**100**
Alexandria									
Spinco	105	45	150	105	45	150	0	0	0
Unirab Co.	5,194	91	5,285	5,180	105	5,285	-14	14	0
Alexandria for Spinning & Weaving	3,352	217	3,569	3,285	188	3,473	-67	-29	-96
Egyptian International for Investment	64	6	70	64	6	70	0	0	0
Attalla Trading	85	85	170	85	85	170	0	0	0
Total	**8,800**	**444**	**9,244**	**8,719**	**429**	**9,148**	**-81**	**-15**	**-96**
Dakahlia									
Dowitex (Abdel Mona-em Moh. Dowidar)	18	2	20	18	2	20	0	0	0
Total	**18**	**2**	**20**	**18**	**2**	**20**	**0**	**0**	**0**
Sharkia									
10th of Ramadan Co.	75	0	75	90	0	90	15	0	15
Al Midani	80	0	80	90	0	90	10	0	10
Menia El Khamh	1,800	150	1,950	1,800	150	1,950	0	0	0
Rosetex Textile	0	0	0	105	0	105	105	0	105
10th of Ramadan S & W (Daymtex)	0	0	0	76	0	76	76	0	76
Shatex Spinning & Weaving	0	0	0	135	0	135	135	0	135
Total	**1,955**	**150**	**2,105**	**2,296**	**150**	**2,446**	**341**	**0**	**341**
Kafr El Sheikh									
Wezza for Spinning Cotton	0	0	0	34	2	36	34	2	36
Total	**0**	**0**	**0**	**34**	**2**	**36**	**34**	**2**	**36**
Gharbia									
Mosa'adtex (Mohamed Metwalli & Sons)	0	0	0	30	30	60	30	30	60
Al Dawlia for Spinning	0	0	0	50	0	50	50	0	50
Total	**0**	**0**	**0**	**80**	**30**	**110**	**80**	**30**	**110**
Grand Total	**11,350**	**623**	**11,973**	**12,447**	**691**	**13,138**	**1,097**	**68**	**1,165**

Source: Adapted and updated from the MVE unit verification report for Tranche III, July, 1999.

Table 8-2: New Jobs Generated at Sample Private Spinning Mills in Fowah, Kafr El Sheikh, May 1998-May 1999

Governorate	May 1998			May 1999			Difference		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Weza Trade & Industry	24	3	27	36	6	42	12	3	15
Startex	27	5	32	33	2	35	6	-3	3
Al Fadali	25	2	27	26	3	29	1	1	2
Al Bosat	24	3	27	30	6	36	6	3	9
Abdallah Hantira	22	2	24	24	2	26	2	0	2
Reda Hantira	20	2	22	22	2	24	2	0	2
Mabrouk Karam	25	4	29	35	5	40	10	1	11
Weza for Spinning	18	2	20	32	4	36	14	2	16
Rashad Abu El Saad	28	2	30	38	4	42	10	2	12
Al Habashi Abu Ahmed	54	4	58	74	8	82	20	4	24
Ali Basal	51	5	56	70	8	78	19	3	22
El Liboudi	19	3	22	33	5	38	14	2	16
Total	**337**	**37**	**374**	**453**	**55**	**508**	**116**	**18**	**134**

Table 8-3: Numbers of Workers by Spinning Firm Type, May 1999

Number of Workers	Privatized Firms	Sample Firms in Fowah	Other Private Spinners	
			Ring	Open-end
1 to 30		3	1	1
31 to 60		7		5
61 to 100	1	2	3	3
101 to 200				4
201 to 500			1	
501 to 1000	1			
1001 to 2000	1			
> 2000	2			

8.2 Number of Workers by Firm Type

As a rough proxy for firm size, the range of employees per firm type is shown in Table 8-3. *The privatized companies are far larger in terms of output and employee numbers.* Three have more than 1,000 employees. The traditional spinners in Fowah are small, with 7 of 12 sample firms having only 31-60 employees. Three of five ring spinners have 61-100 workers, with one firm having over 400 employees. The open-end spinners show the greatest heterogeneity in employee numbers, though all have fewer than 200 employees. Four open-end spinners have 101-200 employees, while five have 31-60 employees.

8.3 Hiring of Former Public Sector Workers

As shown in Table 8-4, *15 of 18 private sector companies (excluding privatized companies) have hired, at various points, an average of 13.9 workers who used to be employed by public sector spinning companies.* Altogether, they hired 208 workers who used to be employed by public spinners. Far fewer managers worked previously in public sector spinning companies—13 managers in 6 firms, of which five are open- end spinners. It is not known what proportion of these former public sector employees received early retirement incentive packages. Seven of these managers of private sector firms used to run public sector spinning companies.

Table 8-4: Private Spinners' Hiring of Former Public Sector Workers

Type of Employee	Type of Spinner	No. Firms	Average No. Hired	Total No. Hired	Minimum No. Hired	Maximum No. Hired
Workers	Ring Yarn	4	21.3	85	5	50
	Open-end	11	11.2	123	2	40
	Subtotal	15	13.9	208	2	50
Managers	Ring Yarn	1	4	4	4	4
	Open-end	5	1.8	9	1	2
	Subtotal	6	2.2	13	1	4

8.4 Male and Female Workers and their Roles

The MVE survey found virtually no evidence of seasonal labor. *Almost all of the workers are permanent, as spinning mills run all year long and spinning is not a seasonal activity.*[38] Among

[38] Although spinning is year-round, there are some seasonal dimensions to the spinning business. Lint procurement is concentrated during the October-March period, after the seed cotton crop is bought and ginned. Spinning factory activity typically slows down in the hottest summer months (July-August), as lint supplies dwindle and as equipment is maintained and refurbished.

permanent workers, *there are far more men than women working in each type of spinning company*. Table 8-5 summarizes the average number of workers per firm for each

Table 8-5: Average No. Permanent Workers and Mean Pay, by Firm Category, 1996-1999

Year	Worker Type	Privatized Firms			Sample Fowah Firms			Other Ring			Other Open-end		
		# Comp.	Workers	LE/Mo.	# Comp.	Workers	LE/Mo.	# Comp.	Workers	LE/Mo.	# Comp.	Workers	LE/Mo.
1999	Men		2493			37.8			138.8			66.0	
	Women		87			4.6			1.6			14.7	
	Subtotal	5	2580	284	12	42.4	321	5	140.4	350	13	80.7	286
1998	Men		3646			28.1			138.8			71.0	
	Women		121			3.1			1.0			36.5	
	Subtotal	3	3767	295	12	31.2	294	4	139.8	300	4	107.5	298
1997	Men		5177			26.4			129.3			61.3	
	Women		179			2.3			1.0			31.5	
	Subtotal	2	5356	222	12	28.7	260	4	130.3	288	4	92.8	273
1996	Men		5291			25.3			119.5			73.7	
	Women		209			2.4			1.0			39.0	
	Subtotal	2	5500		11	27.7	225	4	120.5	263	3	112.7	260
	% Increase from		-53.1%			53.1%	42.7%		16.5%	33.3%		-28.4%	9.9%
	1996 to 1999												

Note: The sample size (# firms) changes from 1996 to 1999, so the figures should be interpreted with caution across years.
See the Annex tables (A2-1 and A2-2) showing labor force and output by company for the privatized & other ring spinners.

spinning company category from 1996 to 1999. The lowest proportions of female employees are found in private ring yarn spinners (1% or less over the four year period) and in privatized spinners (3.2-3.3%). The proportions of women workers are higher in Fowah spinners (8-11%) and in open-end spinning companies (18-34%). The reasons for these differences are not clear; some informants think that the ring spinning of the privatized companies and other private investors is more demanding than open-end spinning or traditional spinning, requiring male employees.[39]

A second conclusion, drawn from Table 8-5, is that *men dominate technical supervisory and factory-floor jobs, while women are found disproportionately in administrative work and as assisting workers*. Assisting workers include those workers who lubricate and repair machinery, clean machinery and the mill, and do electrical work and other non-technical maintenance work. For example, the average numbers of workers at the five privatized companies in 1999 were 2,533 men and 87 women. A disproportionate share of the female workers (30%) were administrative staff, in contrast to only 5% of the men. Men dominate the technical job categories.

Most of the female workers in the Fowah spinning mills are young girls and graduates of women's schools. Women also separate waste by type at home, earning 25-30 piasters per kilogram of waste delivered to the spinning mill. This is temporary or contract piece work, which is not considered permanent employment. Working this way, a typical woman can prepare 20 kg. or more per day of waste for spinning, making at least 5-6 LE per day.

8.5 Pay and Pay Differences among Men and Women

Table 8-6 shows that the *men are paid slightly more (2-9%) than women for most types of work at the privatized companies*. Averaged across all job categories, the differential is 2.6%. A possible reason for this difference is that the pay scales at the privatized companies were established when the companies were publicly owned and attention was paid to gender equity (i.e., equal pay for equal work) under a socialist regime.

Pay comparisons can be made for the 18 other private spinners (ring and open-end), although very few women work for the ring spinners (1.6 per company, in contrast to an average of 84.8 men, or 98% of the labor force). An average of 14.7 women work for each open-end spinner, whose average labor force is 100.7 workers. The average salary paid to women by the ring spinners was LE 297/month, while men received an average of LE 326/month.[40] Men were paid 18% more on average than women at the open-end spinners and a larger differential for certain types of work (e.g., LE 285/month to men as technical workers vs. LE 236/month for women).

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[39] This goes against the conventional wisdom in the western countries, where women are perceived to have better fine motor skills than men, and hence are better adapted to work in spinning mills.

[40] There are so few women working per labor category that it is hard to make conclusive generalizations about male-female wage comparisons per category.

Table 8-6: Average Worker Numbers and Pay, by Job Category and Firm Type, 1999

Worker Type	Privatized Firms		Sample Fowah Firms		Other Ring		Other Open-end	
	No.	LE/Mo.	No.	LE/Mo.	No.	LE/Mo.	No.	LE/Mo.
Admin. Staff (men)	125	352	1.0	323	8.2	350	3.9	311
Admin. Staff (women)	26	324			0.8	375	1.1	279
Technical Staff (men)	188	325	1.4	362	15.4	375	4.8	363
Technical Staff (women)	9	313			0.4	300	0.6	300
Technical Workers (men)	2197	278	34.9	304	54.3	325	73.6	285
Technical Workers (women)	37	272	4.5	210	0.4	215	12.4	236
Assisting Workers (men)	23	185	1.2	203	6.6	200	3.4	192
Assisting Workers (women)	15	188	0.1	170			0.8	180
Others (men only)					0.3	250	0.2	313
All Labor Categories	2620	285	43.1	292	86.4	285	100.7	285
Subtotal/Average Men	2533	284	38.5	304	84.8	326	85.9	287
Subtotal/Average Women	87	277	4.6	209	1.6	297	14.7	244
% Premium Paid to Men		2.6%		45.1%		10.0%		17.6%
Average Monthly Payroll	2,620	744,344	43.1	12,655	86.4	28,065	100.6	28,029
% Pay to Technical Workers		83.4%		84.0%		62.8%		75.5%
Ratio betw. High/Low Category		1.9		2.1		1.9		2.0

In sharp contrast to the privatized companies, the survey results from Fowah show (see Table 8-6) significant pay differences for men and women doing the same type of work.[41] The differentials were 45% for technical workers and 19% for assisting workers, although the numbers of female workers are small so these figures should be interpreted with caution. One possible explanation for these pay differences is that employers in rural areas can discriminate against women on the presumption that women are less productive than men in factory work. Unfortunately, we have no conclusive empirical means of testing this hypothesis (no output data by worker type and sex).

The average monthly salaries across all job categories and company types range from LE 180 to 375, representing a pay differential of only 2 to 1, which is evidence of a rather flat pay profile, considering the skill differences required to do different jobs. Male technical supervisory/management positions pay the highest salaries—LE 325-375 per month on average. Technical (production line) workers, who make up the majority of each company's labor force, receive monthly mean salaries of LE 210-325, representing 79-87% of the average pay of technical managers. Technical supervisors earn a premium over technical workers that averages from LE 47 to LE 78 per month. Administrative

[41] Across all labor categories in Fowah mills, men were paid 45% more than women.

staff are paid slightly less (7-14%) than technical managers in all types of spinning companies except for the privatized firms, where the administrators receive an 8% premium. This again may be a holdover from the public sector era, when office work (bureaucratic or white collar jobs) were perceived as superior.

Assuming that workers work 26 days per month, daily salaries range from LE 7.1 to LE 14.4. This assumes they work six days a week. Female employment in association with Fowah spinning mills is seasonal employment that depends upon young, unmarried women, who usually work in their homes and get paid on a daily basis (6-7 LE/day), related to their output, for preparing various types of waste for spinning.

8.6 Productivity

8.6.1 Productivity Comparisons by Firm Category

Private ring spinners and open-end spinners are more productive than the privatized spinning companies and the traditional Fowah producers per worker and per million LE of annual salary expenditure, expressed in either physical output or value of output terms. Table 8-7 presents the average number of workers, yarn output and value, and salary expenditure by type of spinning firm. From this table, we derive productivity measures in both physical output and value terms, shown in Table 8-8.

As expected, annual output in metric tons per worker is lowest in the privatized companies, which have redundant labor, and higher for the traditional spinners and private sector ring yarn spinners (who do all steps of the ring spinning process). The private spinners who do twisting have higher apparent productivity than the other spinner types, because the workers perform only one step in the spinning process. As a result of this, their productivity figures are not really directly comparable with the other types of spinners, who perform all the steps in the spinning process.

Open-end spinners' output per worker greatly increased over the four-year period from 1995/96 to 1998/99 and is higher than both ring and Fowah spinners. Output of 14.0 mt/worker in 1998/99 was the highest physical productivity among all spinner types; it was also nearly three times the lower level of 5.2 mt/worker output of 1995/96. When expressed in salary expenditure terms, ring spinners produce 1.3 mt per thousand LE of salary expenditure, open-end spinners produce 4.1 mt, and the privatized spinners produce 1.0 mt. The fact that the *physical measures are higher for open-end spinners reflects the technically less demanding nature of the open-end spinning process than ring spinning.*[42] *Again, productivity comparisons across spinner types need to be made with caution.*

[42] It is also important to note that productivity comparisons would be more precise if the average count of the yarn produced were taken into account. Spinners of low-count yarn can generate more output per worker or per LE of salary expenditure, using open-end spinning machinery, but this output has a lower value than higher-count ring yarn.

Table 8-7: Average Numbers of Workers, Yarn Output & Value, and '000 LE of Salary Expenditure, by Firm Category, 1995/96-1998/99

Units	Privatized					Fowah Sample				
	Firms	Worker	Salaries	Output	Value	Firm	Worker	Salaries	Output	Value
	No.	No.	000 LE/yr	mt	'000 LE	No.	No.	000 LE/yr	mt	'000 LE
1998/99	5	2,580	8,793	8,624.2	102,459	12	42.3	164.1	234.0	939.9
1997/98	3	3,767	12,079	12,013.3	156,124	12	31.2	109.3	163.8	659.2
1996/97	2	5,356	14,306	15,917.0	205,867	12	28.8	88.7	162.8	605.6
1995/96	2	5,500	13,547	15,104.5	189,354	11	27.6	75.4	171.9	622.7
%Change, 1996-99	150 %	-53%	-35%	-43%	-46%	9%	53%	117%	36%	51%

Units	1-2 Private Ring (all steps)					3 Twisters				
	Firms	Worker	Salaries	Output	Value	Firms	Worker	Salaries	Output	Value
	No.	No.	000 LE/yr	mt	'000 LE	No.	No.	000 LE/yr	mt	'000 LE
1998/99	2	251	994	1,326	15,834	3	66.7	276	3,624	35,928
1997/98	1	384	1,382	1,716	13,728	3	58.3	212	3,624	29,189
1996/97	1	366	1,318	1,560	12,168	3	51.7	179	3,624	27,120
1995/96	1	347	1,249	1,404	10,530	3	45.0	135	3,024	23,124
%Change, 1996-99	100 %	-28%	-20%	-6%	50%	0%	48%	104%	20%	55%

Units	Private Open-end				
	Firms	Worker	Salaries	Output	Value
	No.	No.	000 LE/yr	mt	'000 LE
1998/99	8	80.7	274.9	1,131.8	9,103.9
1997/98	4	107.5	358.5	708.0	5,853.0
1996/97	4	92.8	290.6	853.3	6,565.3
1995/96	3	112.7	325.6	586.7	4,350.0
%Change, 1996-99	167 %	-28%	-16%	93%	109%

Notes: The figures above are averages across the number of firms in each category for each year. Note that the number of firms per category changed over the period of analysis. Also note that information on average yarn count produced per category of firm per year would add another dimension to the analysis and make productivity

comparisons more useful. MVE lacked sufficiently precise time-series data, however, with which to do analysis of how yarn counts influenced productivity across spinner categories.

Table 8-8: Average Yarn Output & Value of Output per Permanent Worker and '000 LE of Expenditure, by Firm Category, 1995/96-1998/99

	Privatized		Fowah Sample		Private Ring (all steps)		Private Ring (twist)		Private Open-end	
	Output (in mt) per									
	Worker	'000 LE	Worker	'000 LE	Worker	'000 LE	Worker	'000 LE	Worker	'000 LE
1998/99	3.3	1.0	5.5	1.4	5.3	1.3	54.3	13.1	14.0	4.1
1997/98	3.2	1.0	5.3	1.5	4.5	1.2	62.2	17.1	6.6	2.0
1996/97	3.0	1.1	5.7	1.8	4.3	1.2	70.1	20.2	9.2	2.9
1995/96	2.7	1.1	6.2	2.3	4.0	1.1	67.2	22.4	5.2	1.8
%Change 1996-99	21.7%	-12.0%	-11.1%	-37.4%	30.6%	18.7%	-19.1%	-41.4%	169.4%	128.5%

	Privatized		Fowah Sample		Private Ring (all steps)		Private Ring (twist)		Private Open-end	
	Value of Output (in '000 LE) per									
	Worker	'000 LE	Worker	'000 LE	Worker	'000 LE	Worker	'000 LE	Worker	'000 LE
1998/99	39.7	11.7	22.2	5.7	63.1	15.9	538.7	130.2	112.8	33.1
1997/98	41.4	12.9	21.2	6.0	35.8	9.9	500.7	137.7	54.4	16.3
1996/97	38.4	14.4	21.1	6.8	33.2	9.2	524.6	151.5	70.8	22.6
1995/96	34.4	14.0	22.5	8.3	30.3	8.4	513.9	171.3	38.6	13.4
%Change, 1996-99	15.3%	-16.6%	-1.5%	-30.6%	107.9%	88.9%	4.8%	-24.0%	192.2%	147.9%

Notes: 1) Output per worker is reported as mt/year of production. It is calculated by dividing the average annual output by the average number of employees.

2) Output per million LE of salary expenditure is reported as mt/year of production divided by million LE of annual expenditure on salaries.

3) Value of output per worker is reported as '000 LE worth of output per worker.

4) Value of output per million LE of salary expenditure is also reported in '000 LE.

5) Al Alamia is excluded from the figures for privatized firms. As a much smaller operation than the other privatized companies, its

figures skew the results.

Looking at productivity in terms of the value of output, similar conclusions can be drawn, although Fowah spinning companies end up being the least productive (LE 22,200 of output/worker per year in 1998/99), 55% the level of the privatized spinning companies (LE 39,700 of output/worker). In contrast, private ring spinners are the most productive at 63,100 LE/worker, and open-end spinners achieved 112,800 LE of output/worker per year. The pattern of productivity differentials changes when the value of output is compared per thousand LE of salary expenditure, with Fowah spinners having the lower productivity, and privatized spinners having higher productivity than ring spinners in most years (except 1998/99, when Alcan Mana'ai came on stream, leading to a dramatic increase in ring spinner productivity).

Productivity, expressed in value of output terms, is highest for the open-end spinners. Note that the productivity of the open-end spinners increased by 192% per worker over three years, from 1995/96 to 1998/99, and by 148% per thousand LE of salary expenditure over the same period. This is a remarkable achievement. It is probably due to the fact that the newest open-end spinners, which came on stream in 1998 and 1999, had the best technology and operated the most efficiently.

8.6.2 Differences between Men and Women

MVE lacks productivity measures by worker job category or by sex of worker. Note, however, that 77% of the surveyed firms reported that women are hired to do only particular types of work, such as secretarial/administrative work and assisting in technical work. The traditional spinners of Fowah use some women to do technical work, but women are used mainly as outside contractors who prepare waste for spinning.

Only one firm, a privatized spinner, reported that women's productivity was higher than men's. Seven of 35 firms (20%) said that it was about the same as men's, while 21 firms (60%) said it was lower. The managers of six firms (17%) reported that women's productivity tends to be higher than men's before the women get married, at which point it drops. This is no surprise in a society that places such heavy demands on working women. Working women who receive salaries under LE 375/month (the highest reported salary level for women) bear a disproportionate share of the child-rearing and household responsibilities.

8.7 Management

The managers of the private sector spinners are, as expected, Egyptians with textile industry experience. The chairmen of Unirab and Alexandria S&W are the same managers who ran those companies before privatization. Only one of the privatized companies, DIP, has foreign managers and skilled technicians on staff in Egypt. There are ten Koreans (from the parent company, Dong Il): one general manager, one technical director, one marketing manager, one Chairman of the Board, three shift supervisors or foremen, and three skilled machinery repairmen.

Only one of the other private sector spinning companies, Egyptian International Company for Spinning, an open-end spinner in Alexandria-Amriya, reported having any foreign managers, including a technical supervisor and a financial manager.

Some of the private spinners (excluding Fowah companies) are run by managers who used to be managers at public companies. In seven companies, the chief manager of the spinning company used to be the managing director of a former public sector spinning mill (or company).

8.8 Plans to Hire, Fire and/or Restructure

Other than the privatized spinning companies, most private spinners are expanding their labor forces as they bring new equipment and production lines on stream. One of the privately-owned privatized companies, Alexandria S&W, is allowing its labor force to contract slowly through attrition. From May 1998 to May 1999, Alexandria's labor force contracted 2.7%. It does not have an early retirement program as such, as the company owner feels that pressuring workers to take early retirement is not a good way to increase company productivity or morale.[43] Unirab's labor force remained at the same level during this same period. DIP selected 180 workers from the ESCO labor force in 1997/98[44] and then added 420 additional workers who had not worked for ESCO in 1998/99. The redundant employees at the DIP spinning plant were transferred to ESCO, a poorly performing public sector company. MVE does not have any information on whether the leaseholder at Minya El Kamh retained all of the workers for the three spinning units or reassigned some to other Sharkeya Company mills.

[43] Samir Riad, principal owner of Alexandria S&W, feels that forced retirement programs undermine worker morale and productivity. He states that other means to increase productivity, such as retraining or redeploying workers, or reducing waste, are more effective.

[44] The remaining ESCO workers were transferred to the Cotton and International Trade Holding Company.

9. RELATIONSHIPS WITH TEXTILE INDUSTRY ORGANIZATIONS

This chapter discuss the relationship of private spinners to industry organizations that are run by the public sector or are quasi-public in nature.

9.1 Relationship to TCF & TCF Minimum Prices and Quotas

Three privatized spinning companies and one ring spinner take advantage of the services of TCF. These four companies, plus the four other ring spinners, reported that a valuable service provided by TCF was setting minimum yarn prices. Six of these firms think that TCF sets domestic yarn prices, but this is mistaken. Three of the ring spinners also noted that TCF defends the interests of Egyptian spinners in international markets, and two ring spinners and one privatized firm stated that TCF provides useful information about foreign markets. All eight respondents noted that TCF manages the export quota system and six of eight stated it assures the quality of Egyptian textile exports.

There is no relationship between the Textile Consolidation Fund (TCF) and the spinning companies in Fowah. None of the Fowah companies produce exportable quality yarns, though they could export through the TCF-managed quota system if they did. Most of the Fowah spinners have limited information about international markets, yet they feel that Egypt has opened and liberalized its economy, and they want to share in the benefits of the liberalized environment.

9.2 Relationship to ETMF

ETMF appears to target the larger, more formal private firms as members. All five privatized spinning companies are members, as are 15 of 18 other private spinners. Only one spinning company in Fowah, Startex, is a member of ETMF, which is a surprising finding, especially when ETMF claims broad national membership.

When asked to name the most valuable services provided by ETMF, the members responded that ETMF does the following:

- publishes a directory (5 privatized spinners; 4 ring, 8 open-end)
- provides information on the domestic market (3 privatized, 2 ring, 6 open-end)
- provides information on foreign markets (3 privatized, 3 ring, 4 open-end)
- offers advice on how to market yarn and textile products (1 privatized, 1 ring, 2 open-end)
- represents spinners' interests in policy circles and discussions (3 privatized, 3 ring, 7 OE)
- advertises and promotes Egyptian textile products (2 privatized, 3 ring, 3 open-end).

The above pattern of responses suggests that most spinners consider that ETMF provides useful information on the industry and markets, and that it represents the industry effectively in policy debates, but that ETMF is weaker on advising spinners how to promote and market their products. This is a typical comment about the strengths and weaknesses of a broad-gauged industry representational organization. ETMF actually represents multiple industries: spinning, weaving, knitting, RMG manufacture, and dyeing and finishing. The interests of these different industries diverge at times,

particularly over the issue of whether to use Egyptian lint cotton or yarn, as opposed to imported lint, yarn or fabric, as raw material in textile production. Export-oriented weavers, producers of RMGs and knitted textiles want the cheapest yarn and fabric so they can be competitive in international markets. Spinners who use largely the relatively expensive Egyptian cotton lint would like to see more Egyptian yarn and fabric sold to domestic weavers, knitters and RMG producers.

The owner-managers of all of the sample firms in Fowah stated that there is no GOE interest or interference in their work, though they would like to establish an association or producers' union[45] to help them find better opportunities for their products in domestic and international markets.

9.3 Relationship to Holding Companies

Many private companies reported that the holding companies provided lint cotton to them at fixed prices in 1998/99, set in relation to ALCOTEXA opening export prices. Three of five privatized spinners and 10 of 18 other private spinners receive lint in this way. The holding companies provide no assistance to the private spinners in selling their yarn, however.

The Fowah spinners have no relationship with the textile holding companies. They use only waste as an input and did not buy any discounted lint cotton from the public sector cotton trading companies in 1998 or 1999. Beyond the HCs, the Fowah spinners have no relationship with the GOE or any of its federal agencies. These spinners register at the City Council, which obtains only information about the factories' owners and names and collects a registration fee of LE 85/factory.

In contrast, *all of the privatized spinning companies and 13 of 18 other private spinners have some relations with the holding companies.* The two privatized spinners that are privately owned, Unirab and Alexandria S&W, send the HCs information about their production (output mix) and lint requirements. Both of these companies also reported sitting on the TCF Permanent Committee and the TCF Commercial Committee, which sets minimum export prices for yarn and fabric.

In the fall of 1998, three privatized spinners and one open-end spinner obtained Giza 75 at a discount, which required holding company approval. Two of the three privatized spinners were able to buy as much discounted Giza 75 as they wished, while one could not. Another privatized company knew about the discounts but did not want to use Giza 75 for spinning (Minya el Kamh). A last privatized spinning company reported that its order was considered too small to fill by the Holding Company, so it received no Giza 75. It appears as if the discounted Giza 75 was more readily obtainable by public sector spinners and large privatized spinners (Alexandria Spinning & Weaving, Unirab) than by smaller private spinners. Since the public sector (holding companies) held the carryover Giza 75 stocks, this is not surprising.

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[45] There was an association established in Fowah for the manual producers of kilims. This association was responsible for selling Fowah's production of kilims to the public sector. As the number of manual producers of kilims declined, however, with the development of the machine-made carpet industry in Egypt, this association's activity has almost stopped. Hence, spinners are now considering the establishment of an association for yarn producers.

The open-end spinner who bought some Giza 75 at a discount also reported that he could not buy as much as he wished. Other open-end spinners said that they did not require any Giza 75 for the low counts of yarn that they spin, for which Giza 75 is very expensive raw material.

10. POLICY ISSUES AND CONSTRAINTS

This chapter discuss important policy issues and problem areas addressed by the survey and raised by private spinners.

10.1 GOE Influence over the Price of Yarn[46]

GOE influence over prices of export yarn is tenuous, because an industry committee at TCF sets minimum yarn export prices. These minimum prices were adjusted downward in 1998/99 and 1999/2000, but Egyptian yarn exporters continue to face stiff competition and there are allegations (and some admissions) of chiseling. Yarn that is produced has to be sold, or burdensome inventories pile up. TCF officials report that the textile industry in Egypt is under siege and that minimum price systems have broken down. Hence, to the extent TCF can be considered a GOE agency (it claims to be autonomous), its minimum yarn export prices have proven to be unenforceable during the past two years or so.

Domestic prices of yarn are affected by imports of foreign cotton yarn and sales taxes. Foreign cotton yarn is supposed to be taxed at 30% as of the year 2000, which will decline three percentage points a year to 15% by 2005 under the UR-GATT agreement. Most imported yarn is used by the Egyptian weavers, knitters and RMG producers to produce textiles for export. In this case, where final goods are exported, foreign yarn is imported duty-free (under duty drawback or temporary admission systems). The system is imperfect, and some spinners complain about leakage of textile products spun from imported yarn into the domestic market.[47] Many informants confirm that there is smuggling of cheap RMGs into Egypt.

The magnitude of the import duties is greater than the sales tax on domestically produced yarn of 18%. Both taxes increase the cost of producing cloth, knits, garments and other textile products. Not only does this hurt exports, but it makes textile products more expensive for Egyptian consumers, who do not spend a lot of money on textiles but who would spend more if textile products were cheaper. *As an important input into a key, strategic industry, yarn should not be taxed so highly.*

10.2 MALR Varietal Policy

Spinners' views on how much area should be planted to different types of varieties—ELS, LS and MLS—are summarized in Table 10-1. Note that the Fowah spinners basically expressed no opinions, responding that the areas planted to the different fine cotton types should remain the same. All 12 Fowah spinners favored cultivation of cheaper short-staple varieties in Egypt,

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[46] This issue has been addressed in earlier MVE publications (see Verification Reports, Tranches I and III).

[47] One knowledgeable observer of the textile industry in Egypt states that this does not take place.

Table 10-1: Spinners' Views on Area Planted to Different Types of Cotton

	# Firms	Area to ELS						Area to LS						Area to MLS						Promote	
		Increase		Decrease		Stay Same		Increase		Decrease		Stay Same		Increase		Decrease		Stay Same		N	%
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Privatized	5	0		5	100%	0		2	40%	1	20%	2	40%	2	40%	0		3	60%	4	80%
Fowah Sample	12	0		0		12	100%	0		0		12	100%	0		0		12	100%	12	100%
Other Priv. Sp.																					
Ring	5	2	40%	3	60%	0		0		0		5	100%	3	60%	0		2	40%	1	
Open-End	13	0		7	54%	6	46%	1		0		12	92%	2	15%	0		11	85%	13	100%
Total	**35**	**2**	**6%**	**15**	**43%**	**18**	**51%**	**3**	**9%**	**1**	**3%**	**31**	**89%**	**7**	**20%**	**0**		**28**	**80%**	**30**	**86%**

Note: 1) ELS varieties include Gizas 45,70, 76, 77 & 88. LS varieties include Gizas 75, 85, 86 & 89. MLS varieties include Gizas 80 & 83, which are technically at the low end of the LS range. From a quality and price standpoint, they are considered significantly different by spinners.

2) Fowah spinners appear to have no opinions about lint cotton, as they use waste.

however. Perhaps they would use short-staple cotton if it were priced below Egyptian *barbadense* varieties.

In contrast, the other categories of private spinners expressed stronger opinions. All five privatized spinning companies said that ELS area should decline; two of these companies said area to LS and MLS should increase (with the other three responding that area to LS and MLS should stay the same). Four of five privatized spinners also favored promoting cultivation of short-staple cotton varieties in Egypt.

Among the 18 other private spinners, opinions differed by technology type (and implicitly, by product mix). Two of five ring spinners, who spin higher counts of yarn, said that ELS area should increase, while three said it should decrease. Three ring spinners favored increasing MLS area, of which two are exporters, and two stated it should stay the same. Only one of five favored cultivation of short-staple cotton in Egypt. In contrast, all 13 open-end spinners, who spin coarser counts of yarn, all favored short-staple cotton production. Furthermore, 7 responded that ELS area should decline, while nearly all of the 13 thought LS and MLS area should remain the same. Of the two open-end spinners who stated that MLS area should increase, neither was an exporter.

Clearly, *spinners' opinions are governed by the types of lint cotton they are currently spinning and the counts of yarn that they are producing.* Firms producing higher counts of yarn, generally ring spinners, want ELS area to increase. Firms producing lower counts of yarn, often open-end spinners but also privatized companies (Unirab and Alexandria S&W), desire more domestic production of MLS, as well as introduction of short-staple cotton. *There should be a mechanism for transmitting these opinions to the MALR Committee* that determines the seed cotton varietal mix and area each year.

Note that the two ring spinners who said that the MALR should increase area cultivated to ELS varieties thought that Giza 70 and 77 area should be expanded and that these varieties had a competitive advantage in the production of higher counts of yarn than non-ELS varieties. The 15 spinners—5 privatized, 3 ring, and 7 open-end—who stated that ELS area should decline reasoned that production costs and prices for these varieties are too high. Of the five spinners who noted that MLS area should increase, three thought that the production costs and prices for Giza 80 and 83 were low (relative to the other Egyptian varieties), and two stated that these varieties were suitable for the counts of yarn spun by Egyptian spinners. Finally, the 14 spinners who favor growing of short-staple cotton in Egypt do so because production costs and prices are lower than for the Egyptian *barbadense* varieties.

10.3 The Tax Burden on Spinners

Table 10-2 summarizes taxes paid by the private spinners surveyed. Note that most of the spinners, netting out the 12 Fowah sample spinners, paid import duties of 10% on imported machinery and spare parts. By taxing capital inputs into the production process, the GOE is penalizing spinners by increasing their production costs and making it harder for them to compete. Cotton and synthetic waste, used by 5 open-end spinners and all 12 of the Fowah spinners, is reported to be taxed at 6% by 13 of the companies surveyed.

Table 10-2: Tariffs and Taxes Paid by Private Spinners, 1998/99

	Tariff		Sales Taxes		Other Fees	
	No. Paid	Level	No. Paid	Level	No. Paid	Level
Imported Machinery	21	10%	21	5%	20	2%
Imported Spare Parts	21	10%	21	5%	20	2%
Domestic Cotton Waste			13	6%		
Lint Cotton	1	5%	17	18%	1	2%
Cotton Yarn	1	30%	33	18%		

Notes: 1) One buyer of domestic cotton waste reported paying a sales tax of 18%. All others reported paying 5%.

2) One spinner only used imported lint in 1998/99 and paid 5% import duty, 18% sales tax, and 2% miscellaneous fees.

Private spinners who buy Egyptian lint cotton also reported paying a sales tax of 18% in 1998/99. Since lint is the main cost component in spinning production costs, a sales tax of this magnitude, if paid, would undermine Egyptian spinners' competitiveness. In interviews conducted in the fall of 2000, however, *MVE found that in nearly all cases spinners, whether public or private, do not pay any sales tax on lint.* If it is (erroneously) collected, they can recoup it later from the tax authorities when they go to sell yarn.

Domestic yarn sales are subject to a sales tax of 18%, which spinners consider excessive. In theory, this is the only point in the value-added chain where Egyptian cotton is taxed (when sold as yarn). Domestic sales of fabric, knits and RMGs are not taxed at the wholesale level, as the sales tax has already been paid on the yarn used to produce these textile products.

In addition to the import tariff of 5%, imported lint was also subject to a sales tax of 18% in 1998/99, at least in theory. In practice, however, this sales tax appears not to have been applied to imported lint beginning in 1999/2000. Imports of Greek cotton lint by the Holding Company in 1999/2000 were delayed in delivery to spinners for some time while the HC protested the levying of such a high sales tax on lint going largely to financially troubled public sector spinning companies. Eventually, the sales tax was waived. The sales tax appears also to have been waived for lint cotton imported from other countries, such as Syria and Sudan.

Imported yarn has been subject to a 30% tariff since APRP began. This tariff is supposed to decrease 3 percentage points a year from 2001 to 2005, ending up at 15% in 2005. In theory, sales of imported yarn into the domestic market are also subject to an 18% sales tax. Since virtually all imported yarn is used to make fabric, knits and apparel for export, this sales tax is rarely, if ever, paid. It may be temporarily collected but it is reimbursed later when the exporting textile company ships textile products made from the imported yarn. Similarly, the tariff is not usually paid on imported yarn, as it is used in making export-bound textile products.

At several points in this paper, in other publications, and in several proposed Tranche V policy benchmarks, *APRP has argued that the tax burden facing spinners is punitive to the domestic textile industry and is one important factor contributing to its decline.* High taxes on capital and

raw material inputs, as well as yarn outputs, could also constrain future investment in and development of private sector spinning. Sales of Egyptian yarn to the domestic weavers and knitters are taxed heavily at 18%. If these domestic manufacturers export textile products, they are reimbursed the 18% tax upon export of those products. Cheap yarn from Syria, India, Pakistan and other countries can be imported under temporary admission; private firms using this imported lint pay no sales tax on yarn nor charge 18% sales tax on exported production. The fact that manufacturers using Egyptian yarn pay 18% sales tax, even on a temporary basis, discriminates against its used in production of cloth, knits and RMGs destined for export markets. Capital is tied up in the tax during the manufacturing period and while waiting for GOE reimbursement. During the 1990s, investment in private weaving, knitting and RMG production units boomed, as did exports.[48] Nearly all of the raw material used by these private firms was imported. This phenomenon was largely fueled by policies that discriminated versus use of Egyptian yarn, which is taxed on a temporary basis, and encouraged use of imported yarn, which comes in duty-free (through either the drawback scheme or under temporary admission (and exoneration of customs duties)).

10.4 Main Identified Problems

The surveyed spinners were asked to identify problems that they faced; what they reported is shown in Table 10-3. The most commonly identified problems related to the tax burden faced by spinners, including:

- 71% who noted specifically that the 18% tax on sales of yarn and textile products was particularly vexing;
- 57% who reported that many taxes must be paid;
- 49% who said that the *overall tax burden is too high*; and,
- 43% who noted that the 10% tax on imports of machinery and spare parts was high.

The two other most commonly cited problems were limited access to spare parts (51%), noted by all but one of the Fowah spinners, and that the prices of Egyptian lint cotton were too high (46%), noted by almost all of the non-Fowah spinners. Since Fowah spinners use old equipment, originally purchased from public spinners and modified, they have problems obtaining spare parts (although locally made parts probably replace foreign-manufactured parts over time, albeit somewhat imperfectly). *The fact that all of the privatized spinners and almost all of the other private spinners (both ring and open-end) complained about high Egyptian lint cotton prices is very significant. The high cost of raw material has and will continue to hurt their ability to compete both domestically and internationally.*

[48] From 1990 to 1999, exports of knits, made-ups and woven garments expanded from 13,336 mt to 43,127 mt, with an increase in their nominal LE value from 326.1 million to 1.715 billion. In sharp contrast, yarn exports declined from 76,237 mt in 1990 to 37,291 mt in 1999, with a decline in their nominal LE value from 958.7 million to 516.2 million. Fabric exports witnessed a similar decline from 21,207 mt in 1990 to 9,991 mt in 1999. Export levels for yarn and fabric stayed at roughly the same level from 1990 to 1997 before declining sharply in 1998 and then again in 1999.

Table 10-3: Main Problems Identified by Spinners

Type of Evidence	Privatized Firms	Sample Firms in Fowah	Other Private Spinners		Total	% Total
			Ring	Open-end		
Prices of Egyptian Lint Cotton Too High	5		4	7	16	46%
Inadequate Cotton Production in 1999	4			6	10	29%
Limited Access to Certain Egyptian Varieties				1	1	3%
Problems in Importing Lint Cotton			1	1	2	6%
Limited Access to Spare Parts		11	3	4	18	51%
High Tax (18%) on Sales of Yarn/Textiles	4	9	5	7	25	71%
High Tax (18%) on Imports of Textile	1	3	4	7	15	43%
Machinery and Spare Parts						
Many Taxes Must Be Paid	1	3	4	12	20	57%
Taxes Are High	2	4	4	7	17	49%
Insufficient Technical Expertise		4			4	11%
No Training Courses		1			1	3%
TCF Minimum Prices Affect Yarn Exports			1		1	3%

When asked about the most common marketing problems they faced (see Table 10-4), the surveyed spinners responded as follows:

- 51% reported *heavy competition in the domestic market from imported yarn;*
- 23% reported heavy competition in the international market;
- 37% reported inadequate storage (10 of 12 Fowah spinners especially); and,
- 29% reported inadequate transport (8 of 12 Fowah spinners especially).

Other less frequently identified marketing problems, particularly by privatized companies and other private ring spinners, were that TCF minimum export prices are set too high, anti-dumping penalties can be levied by the EU and other importers, and that they face competition in the domestic market from domestic producers of yarn. Open-end spinners were especially concerned about heavy competition in the domestic market from imported yarn (8 of 13). They mentioned competition in the world market (2) and competition from domestic producers of yarn in the domestic market (2 each) less frequently.

10.5 Suggestions for Improving the Policy/Regulatory Environment

10.5.1 Privatized Spinners

The privatized spinners offered no particular policy suggestions, but there are clearly policy issues that affect their profitability and future privatizations. One is the issue of *minimum yarn export prices, set by the TCF Commercial Committee*. These prices *have been adjusted downward during the past two years, but they still are high relative to international competitors*. TCF maintains that setting these prices is done in large part to protect domestic spinners from triggering charges of dumping, particularly from European countries (seeking to protect their industries). Clearly, this is a thorny issue. Perhaps a justification for decreasing the minimum yarn prices (or doing away with them) could be made by reference to calculations of the degree to which the Egyptian pound is overvalued (using IMF or World Bank numbers).

The overvaluation of the Egyptian pound, tied to the strong U.S. dollar, has hurt Egyptian exports to the EU, Asian and regional Middle Eastern markets. Most firm managers consider the level of the exchange rate as a GOE prerogative, beyond their control, so it is rarely mentioned as a policy variable subject to their influence. The pound depreciated more rapidly against the U.S. dollar during the fall of 2000, and the expectation is for further, orderly depreciation.

In 2000/01, the short domestic cotton crop has made it imperative for domestic spinners to import cotton lint. As by far the largest private sector users of lint, the privatized companies should have a strong interest in formal MALR/CAPQ risk certification of lint from several prospective importers, including Syria, Greece and the Southeastern United States. MALR/CAPQ appears not to have followed up with country visits during the year 2000 cotton growing season on cotton phytosanitary work done by APRP/RDI in 1997-1999.

MVE anticipates that the private ring and open-end spinners will have trouble obtaining sufficient lint cotton to operate anywhere near full capacity in 2000/01. Domestic supplies of LS and MLS

cotton will be tight and prices high. To the extent that domestic buyers pay premium prices for seed cotton to growers outside PBDAC-run sales rings during the 2000/01 marketing year, this will squeeze private (and public) spinner margins. While it is anticipated that lint imports will be over 50,000 mt in 2000/01, it is not clear that private spinners would have any advantage in procuring any. Privatized spinners will probably have the best access, as they were former public sector companies and can petition the Holding Company for large quantities. *Smaller private spinners, with potentially smaller orders, may not get rationed any lint imported through the Holding Company or any of the public sector cotton trading companies.* Alternatively, private ring and open-end spinners can buy imported lint from Sudan, as one ring spinner has done for many years.

Finally, a critical issue for privatized spinners and the entire spinning industry is the adverse impact of the high sales tax of 18% on yarn (and other textile products) sold into the domestic market. APRP/RDI initially hoped to develop a policy benchmark on eliminating this sales tax for Tranche V of APRP, but this effort has been discontinued.

10.5.2 Fowah Spinners

The owner/managers of the sample Fowah spinning mills offered the following suggestions:

- There is a need to establish an association for spinners in Fowah that would help solve their problems and represent them before governmental organizations.

- Such an association should represent their products in domestic and international exhibitions and markets, with the approval of the International Organization for Exhibitions.

- The association would work with ETMF or TCF to establish a large model factory in the Fowah district, which would be supplied with advanced machinery and quality control equipment to develop and improve the spinning industry in Fowah.

- The association should advertise Fowah products (both yarn and woven goods from Fowah yarn) in the ETMF magazine and the bulletins of the TCF to promote these products in international markets. Domestic sales of products that use Fowah yarn (that are either hand-made or machine-made) could help Egyptian tourism.

- Fowah spinners should contact the Egyptian Center for Export Promotion and invite the managers in charge, as well as those of the TCF and the ETMF, to an exhibition under the supervision of the city council that exhibits all of the products manufactured in Fowah.

- Lobby their representatives in the People's Assembly to discuss exempting the owners of the factories in Fowah from sales taxes, as all of their products can be considered semi-processed goods.

With the exception of establishing a model factory in Fowah and displaying their products at international exhibitions, most of these measures would not be that costly and could be achieved by an organization

of the Fowah spinners. One wonders why they have not organized themselves to pursue this action agenda, as the sample spinners were able to articulate their needs clearly.

10.5.3 Open-End Spinners

Open-end spinners are interested in procuring the cheapest raw material possible. On the other hand, they appreciate the quality of Giza 80/83. So most of them use these shorter-staple LS varieties, which represent very high cost raw material. As Giza 80/83 stocks were essentially exhausted by the end of May 2000 for the 1999/2000 season, and as the summer 2000 crop is small, open-end spinners were concerned about where their raw material would come from during the 2000/01 marketing season. Clearly, *the open-end spinners are interested in a liberal import policy and regulatory environment that will help them to obtain cheaper foreign lint for spinning low-count yarn. Open-end spinners also strongly support planting of hirsutum (short-staple) cotton varieties* that are less costly to cultivate, give generally higher yields, and that would be priced well below the Egyptian *barbadense* varieties.

The open-end spinners lack any voice in policy circles, however. As their numbers increase, they might consider creating an association, perhaps with the private ring spinners and some of the larger traditional spinners, that represents their interests more effectively than the very broad-gauged ETMF. The initiative for forming such a group will have to come from the open-end spinners themselves.

11. KEY FINDINGS AND CONCLUSIONS

11.1 Policy Changes Contributing to a Positive Investment Climate for Private Spinners

MVE's survey of private spinning companies provides grounds for guarded optimism. Gradual liberalization of the cotton subsector and some successful privatization activity in ginning and textile manufacturing have led to some positive developments. *Contrary to some views, the spinning industry is dynamic and varied in Egypt, with changes in ownership and new investment leading to diverse patterns of production.* The key policy changes that have affected spinners include the following:

- *liberalization of the domestic trade in seed cotton*, with 28% of all seed cotton bought by private traders in 1998/99 and 45% in 1999/2000;

- *liberalization of trade in lint cotton,* leading to more private sector sales of lint to domestic spinners. In 1994/95, lint was allocated by a Holding Company committee and private spinners were not able to obtain Egyptian lint cotton easily. By 1998/99 and 1999/2000, this had changed, as both public and private spinners bought an increasing proportion of their lint cotton from private traders (34% and 43% respectively);

- *hardening of the budget constraint of the textile holding companies with respect to the public sector textile companies*, from 1996/97 onward. Holding companies were less willing to provide cheap finance or ready access to cotton lint to public companies that operated in the red. This led to a decline in their output, particularly during 1998/99 and 1999/2000, when domestic lint consumption declined, and some public mills closed, creating opportunities for private spinners;

- *successful privatization, through sales to anchor investors and other private investors, of two large and productive spinning companies* in 1996/97 and 1997/98–Unirab and Alexandria Spinning and Weaving Companies.[49]

11.2 Key Findings

Some of the key findings are as follows:

- *There has been significant new private sector investment in spinning since 1994/95, particularly open-end spinning,* where 8 of 9 companies use Egyptian MLS cotton (Gizas 80 and 83) and one ring spinner (Alcan Mana'ai) that spins Egyptian ELS cotton (mainly Giza 70) into fine count yarn (> NE 50). The main private spinner in Egypt from the late 1980s through the mid-1990s was Giza Spinning and Weaving Company, which used mainly imported Sudanese acala to spin blended yarn.

[49] Privatization of two public ginning companies, Arabeya and Nile Ginning, in 1996-1998, indirectly contributed to an overall stronger investment climate for private spinning.

- *Privatized spinning companies use Egyptian lint cotton exclusively and ring spinners use largely Egyptian lint.* Open-end spinners mainly use Egyptian lint cotton (62.5% of reported input in1998/99), along with Egyptian cotton (and synthetic) waste from ginning, spinning, *farfarra* operations, and ready-made garment manufacturing of mainly public sector companies.

- In early 1999, there was a high-profile investment in ring spinning by a leading textile producer who also has an open-end spinning mill in Borg El Arab. This is being followed by a more modest investment in ring spinning by a second firm (with production beginning in early 2001) and reports that a third company is considering investing in ring spinning with a foreign joint venture partner. Note that such private investments are made to spin high counts of yarn, a market niche not fully exploited by public sector spinning companies, yet consistent with what most observers argue is an optimal strategy for the Egyptian textile industry.

- *Private spinners' access to Egyptian cotton lint has been and will be affected by decisions taken by ALCOTEXA and GOE committees to set prices for seed cotton, lint cotton for export, and lint cotton for the domestic market.* The past two years have witnessed increased cotton lint sales by private cotton traders to private spinners (new investment and privatized companies), joint investment companies, and public companies. Domestic sales were more profitable for private traders in 1998/99 and 1999/2000, given (artificially) high domestic lint prices (into-mill), barriers to importing lint, and relatively lower prices in the export market (as ALCOTEXA's minimum export prices were often undercut by exporters). Another factor that affected private trading companies' sales of cotton lint to domestic spinners was the incentive to supply them with lower-quality lint (which would increase profit margins) and reserve higher grades for export. *A shift in relative prices in the domestic and international markets (in favor of exports) and increased lint imports has reversed this trend in 2000/01, making exports more profitable than domestic sales. This could hurt domestic private spinners, particularly if they have difficulty obtaining both Egyptian cotton lint and imported lint, which will largely be imported by the Holding Company.* Public spinners will probably have easier access to any imported lint.[50]

- *An increasingly prominent role is being played by privatized companies in the Egyptian spinning industry*, particularly Alexandria S&W and Unirab S&W, as well as DIP Egypt and Minya El Kamh, two multi-year leases. These leases hopefully portend future leases of selected units of other public sector spinning companies.

- Purchase of seed cotton at PBDAC-run sales rings by public spinning companies in 1999/2000 (including Miratex, a joint investment company) and both public and private sector companies in 2000/01 (two privatized ones and one ring spinner) is a positive development in two respects.

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[50] Since most public spinners spin low to medium counts of yarn, they could economize on raw material costs by using cheaper, shorter-staple imported cotton lint. In this sense, importing lint will benefit the overall domestic spinning industry. Private spinners, other than the former public companies of Alex S&W, Unirab, DIP, and Minya El Kamh, may find their access to imports limited, however, if Holding Company imports are allocated to the public spinners.

First, public spinners used to rely completely on the Holding Company's Lint Cotton Facilitation Committee to obtain lint (administered quotas), but this system has broken down. Second, spinners realize that they will have to compete for scarce Egyptian cotton in years, such as 1999/2000 and 2000/01, when lint supplies are short. Buying at sales rings ensures spinner access to seed cotton, which is then ginned for their exclusive use. *Small private spinners who do not have sales rings may have greater difficulty obtaining lint cotton in 2000/01 than the large privatized and ring spinners who buy seed cotton through sales rings.* Spinning company purchases of seed cotton at sales rings may not be a positive development in the sense that the seed cotton marketing system, which is still highly regulated and dominated by public companies, might not provide private spinners with adequate lint without their direct participation in seed cotton buying.

- *Private spinners are willing to use Egyptian lint cotton, despite its high cost, but they would like to see an increase in local production of lower-grade, cheaper long-staple cotton (especially Gizas 80 and 83) and some short-staple cotton* (particularly desired by open-end spinners). If production of lower-cost Egyptian cotton is not possible, many private spinners would like to import cheaper lint, but compliance with phyto-sanitary regulations is difficult and costly in both money and time (high transactions costs).

11.3 Likely Future Developments

During the 2000/01 cotton marketing season and beyond, MVE anticipates that the following developments will take place. First, *public spinning companies will remain under intense pressure to privatize or be liquidated.* Since liquidation is generally not a viable option for the GOE, MPE and the new consolidated Textile Holding Company, they will promote leases with local and foreign partners. APRP/RDI work on promoting leases and management contracts during Tranche III and developing leasing guidelines will facilitate this process. Mahmoud Salem, recently named director of the PEO, is reported to be enthusiastic about promoting leases of public textile companies. Nevertheless, private investor sentiment appears to be negative toward buying or leasing troubled public companies (see box 2).

Second, *private sector investments will be made very selectively, as prospective investors wait and see what the GOE does to privatize loss-making public textile companies. Investments in ring spinning will be cautious and incremental, as investors perceive that a decline in public sector medium-to high-count yarn production is creating opportunities for private spinning. Investments in open-end spinning will likely slow down,* as the enthusiastic entry of private investors into this industry segment since 1994 has made it a crowded segment with a lot of competition. *As long as prices of Egyptian LS and MLS remain high, open-end spinning will not be a very financially attractive investment.* This could change if import costs were lowered, and cheaper foreign lint were substituted for relatively expensive Egyptian cotton lint.

Third, *the 2000/01 cotton marketing season will be a year of higher than usual import volume.* Note that APRP/RDI started to develop a policy benchmark for Tranche V that would help to lower

the cost of fumigation and inspection on foreign soil prior to shipment to Egypt.[51] The SWRMC-HC advertised a tender for 15,000 mt of strict 10w middling lint cotton in late September 2000 and plans to import from Greece through Port Said Cotton Export Company. HC officials anticipate imports of 40,000 to 50,000 mt in 2000/01. It is not clear if private spinners will have easy access to cotton lint imported by public companies. Nor is it clear whether private trading firms will be permitted to compete with the SWRMC-HC in importing lint to meet (public and private) spinners' requirements.

Fourth, *private cotton trading companies* will continue to supply private spinners, but the increasing proportion of their lint cotton sales to local spinners (both public and private companies) in recent years could be reversed. Their *allocations of lint cotton to the export and domestic markets will be determined by relative prices and the export activities and pricing practices of the public cotton trading companies.*

Fifth, *the slow pace of textile company privatization should encourage further private investment in spinning, although short Egyptian cotton crops and uncertain access to imported lint may deter some prospective investors in the short run.*[52] The Egyptian press has published a series of articles about the alarming deterioration of the financial health of the public sector spinning, weaving and RMG manufacturing companies. Given this grim situation, large numbers of redundant workers, and the high valuations of public textile companies, the prospects for privatization through sales to majority owners (anchor investors) or as IPOs on the stock market are considered poor at this point.[53] MPE is promoting leases and management contracts as initial or partial privatization measures. Indian textile management consultants are also working with one public sector textile company to restructure its operations and stem losses. European management consultants will be working with two other public textile companies as well.

Six, if ALCOTEXA were to refrain from setting minimum lint export prices in 2000/01 and 2001/02, this would be a positive sign for prospective investors. Dropping TCF-set minimum yarn prices would also encourage private investment in spinning. *Private spinners can compete effectively against public spinners in a free market environment with market-determined prices, as their production costs are likely to be lower, provided they have access to lint.* Due to this greater efficiency, exports of cheaper privately-spun yarn are less likely to trigger countervailing duties in the EU or US than exports of yarn spun by inefficient public sector companies.

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[51] This proposed Tranche V benchmark was not approved by APRP and USAID, and hence it was dropped.

[52] The short cotton crop of 2000 may be followed by a much larger cotton crop in 2001. This would be due to farmers shifting area from paddy production in 2000 to cotton in 2001. Farmers are facing exceptionally low paddy prices in the fall of 2000, because area cultivated to paddy was a record high and yields were excellent for the summer 2000 crop.

[53] It is rumored that Misr Shebin El Kom Company for Spinning and Weaving has been considered for purchase by a leading domestic textile group. Shebin El Kom spins medium- to high-count yarn and is regarded as one of the top public spinning companies.

The slowdown of textile privatization activity has signaled, to some investors, that the time is ripe for further direct private investment. *A parallel can be drawn with the GOE experience of trying to privatize public sector rice milling companies*, though the two industries (and commodities) have different characteristics. Private investors may choose to build new spinning mills from the ground up and not purchase troubled public companies as anchor investors. The period 1995-1998 witnessed massive private sector investment in rice processing mills, while the purchases and milling output of the public sector rice mills declined following the liberalization of paddy trading in 1992 and 1993. Note, however, that an investment in a private rice mill is far cheaper than building and equipping a modern spinning mill. Many rice millers bought relatively cheap Chinese rice processing equipment. Imported textile manufacturing equipment, particularly spinning units and looms, is far more costly than Chinese rice-milling machinery. *The high start-up investment cost to equip a spinning or weaving mill may encourage some prospective investors in spinning enterprises to consider leasing some of the better-equipped mills of the public sector spinning companies, or to negotiate limited duration production contracts with underutilized public sector companies to produce specific lots of yarn.*

11.4 Recommendations

Recommendation 1: Allow Open Market Pricing of Seed Cotton. In support of free-market pricing of both seed and lint cotton, *the GOE needs to refrain from setting domestic prices for seed cotton*. In 2000/01, seed cotton prices are linked to ALCOTEXA export prices. From 1996/97 to 1999/2000, the levels at which ALCOTEXA set minimum export prices was strongly influenced by the GOE, particularly the Minister of Trade and Supply. The ALCOTEXA Management Committee acted as price takers, not price makers. At the meeting of 9 September 2000, held at ALCOTEXA but chaired by MEFT Minister Youssef Boutros Ghaly, ALCOTEXA adopted a narrow range of prices for each variety (and grade) as opening prices. These were set with pima prices in mind but gave exporters some flexibility in pricing. Offers above the price ranges have been, of course, permitted and accepted. The seed cotton prices, which had been set in late August based on earlier expectations of world prices (which were lower), were unadjusted until 25 September 2000, at which point a premium of LE 10/seed kentar was offered for three long-staple varieties–Gizas 86, 89 and 85–which are in high demand. Lint export price ranges were adjusted for the week of 17-23 October2000 and a second time for the week of 13-19 November 2000. In late October, ALCOTEXA held a Management Committee election, which will result in a shift from pubic sector to private sector dominance of the committee, as of January 2001. *This change in the composition of the Management Committee, as well as the more active management of lint export prices in 2000/01, bode well for eventual liberalization of cotton pricing.*

Recommendation 2: Allow Open Competition in Buying Seed Cotton in and out of Sales Rings. The GOE has allocated one buyer per PBDAC-run sales ring since 1996/97. Public and private buyers pay administered prices to sellers, based on the variety, grade and ginning out-turn ratio. Some transactions take place outside of sales rings at negotiated prices, though the administered seed cotton prices constrict the range of prices that private buyers can offer sellers outside rings.

By allowing registered buyers to compete with one another at sales rings and offer different prices, a more competitive seed cotton marketing system will be promoted. At the same time, *buying seed cotton outside sales rings should be encouraged to further stimulate competition.* As

more firms compete for seed cotton, quality (grade) differences will become more important, and price spreads between grades will reflect quality differences. Increased competition in buying seed cotton and ginning will lead to better quality cotton lint, which will better serve domestic spinners and foreign buyers of Egyptian cotton.

Recommendation 3: Complete Privatization of Public Cotton Ginning Companies. After two successful initial privatizations in 1996 and 1997, privatization of the three remaining ginning companies has stalled. As argued by Krenz and Mostafa (2000a), the MPE and Holding Company are advised to break the ginning companies into small groups of gins, which would be offered for sale. None of the prospective bidders want to buy entire public ginning companies, as their cost is prohibitive (land and company valuations are high), but they are interested in buying 1-3 gins in selected production zones.[54] *By completing privatization of the cotton ginning industry, the GOE would push liberalization forward, making the industry more competitive and service oriented. Ginning capacity would be streamlined,* through closures of old, inefficient gins, and *technology upgraded,* as revenues from land sales would be reinvested in the remaining gins. Gins would price their services competitively and offer better services to clients.

Recommendation 4: Allow Open Market Pricing of Lint Cotton. *Lint cotton prices into spinning mills should also be free to vary in response to domestic and international supply and demand conditions. This will lead to more optimal domestic utilization of lint cotton*. Technically competent, well-managed ring spinning mills will be able to buy ELS and LS cotton to spin higher counts of yarn and earn profits. Less well-managed public ring spinning mills that spin lower counts of yarn would have trouble buying Egyptian lint cotton and would be forced to upgrade their operations to spin more profitable higher counts or would have to buy cheaper imported lint that is short- or medium-staple. Open-end spinners would be encouraged to find the cheapest raw material available to produce low-count coarse yarn. A higher proportion of Egyptian lint cotton would be exported in the short to medium run, as underspinning of expensive Egyptian lint would decline.

Recommendation 5: Facilitate Lint Cotton Imports. *Simplifying and facilitating imports of short- and medium-staple cotton lint would allow public and private sector spinners of lower counts to obtain cheaper cotton better suited to their technical capabilities and the demands of the market*. Facilitating imports means streamlined, transparent MALR/CAPQ regulations and where possible, country-specific risk assessments that allow certain supplying countries to be pre-cleared for shipment to Egypt (following the usual handling precautions to comply with phytosanitary regulations). As recommended by APRP/RDI, the MALR should waive double fumigations (one is usually sufficient) and cover the costs of Egyptian inspectors supervising fumigation and loading of cotton lint on board ships destined for Egypt.

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[54] One ginning company, Misr Ginning, has most of its gins in Upper Egypt. These gins are underutilized and have a lot of redundant labor. They are also located in production zones where the varieties Giza 80 and 83 are grown. These varieties are largely reserved for domestic spinning. Hence, Misr Ginning Company is a less attractive investment than the other two public ginning companies, Delta and El-Wady, because prospective investors (traders who export) want access to exportable varieties.

Removal of all import duties and sales taxes on imported lint would also make domestic spinners' raw material as cheap as possible, which is critical for them to be competitive (in both domestic and foreign markets). The contribution of these taxes to GOE tax revenue is marginal, and their collection harms the competitiveness of Egypt's spinning industry.

Recommendation 6: Promote Leases of Public Sector Spinning Units, Management Contracts, and Short-Term Contract Operations. Short of selling public sector textile companies to anchor investors, *promoting leases is preferable to continued public spinning industry stagnation and decline. Some liquidations may be desirable, however, to concentrate limited available resources on restructuring a handful of companies with privatization potential*. Note that there are a few instances of public companies doing spinning under contract to private lint/yarn traders. How common this phenomenon is likely to become is unclear. From an economic standpoint, it is a second best alternative to outright privatization sales, longer term leases, or liquidation. Although it generates revenue for beleaguered public spinning companies, much of the capacity and labor of those companies remains idled.

Recommendation 7: Allow Open Market Pricing of Yarn. This recommendation is somewhat beyond the scope of this paper and requires a more thorough treatment (see Dahmoush, Habibi and Ariza-Nino, forthcoming). Nevertheless, it is offered based on economic logic and earlier analyses of yarn export data. TCF should refrain from setting minimum yarn prices for different counts of yarn. Historically, the minimum prices have been set too high for the lower counts, which has eroded Egyptian market share in certain markets. Free market pricing is critical in an industry where international yarn price swings have been quite substantial during the past several years.

This being said, yarn pricing that does not take the full set of production costs into account could trigger retaliatory dumping penalties in major markets, particularly Western Europe. One challenge for the spinning industry is to counter blanket accusations of dumping by an entire industry (all spinners) with cost of production data disaggregated by type of company or by specific company. Private sector spinners have a distinct cost advantage in that their per ton production costs are lower than those of public spinners with redundant labor and obsolete or poorly performing equipment. For private sector spinners to succeed in export markets and avoid charges of dumping, they are advised to dissociate themselves from less efficient public spinners. This may require, in the future, being able to detail their investment and operating costs and present them in a way to counter dumping accusations. In the final analysis, the newcomers to the Egyptian spinning industry will be more efficient, lower-cost producers than both public sector spinning companies and many spinners in foreign countries, particularly high-income countries with high labor costs.

Recommendation 8: Conduct Further Focused Studies and Analyses of the Domestic Textile Industry. The forthcoming APRP/RDI study of Dahmoush, Habibi and Ariza-Nino promises to provide detailed estimates of production costs for a sample of public and privatized spinning companies, as well as estimates of returns from spinning different counts of yarn. APRP/MVE is planning (in December 2000-January 2001) to conduct a mini-survey of private spinners to obtain information about their recent and planned investments, changes in employment since May 1999, and input use and output mix and levels during 1999/2000 and 2000/01. Continuing to track private investment in spinning, particularly in industrial zones such as El Obour City (see Table A1-2 in Annex 1), 10th of Ramadan, 6th of October,

Sadat City, and Borg El Arab, will be an important research priority. Although a lower priority (APRP is not planning to study the traditional spinning firms in the future), it would be interesting to do a census of traditional spinners in geographic clusters other than Fowah. Finally, the extent to which Egyptian RMG manufacturers increase their use of Egyptian yarn will be important to monitor in the future. This increased use may be contingent upon phasing out of temporary admission and duty drawback schemes applying to cheap imported yarn, however.

Concluding Comment. The above policy recommendations go beyond the spinning industry. They are intended to be comprehensive, because *liberalization of the spinning industry and other industries in the cotton/textile subsector requires a comprehensive plan and policy and regulatory framework. Piecemeal reform measures will lead to uneven and partial liberalization.*

MVE believes that liberalization of the cotton/textile subsector has reached a point where it is difficult to reverse. There is an active and vocal private sector, which protests backsliding or arbitrary decisions by administrative fiat, as witnessed by private trader protests in August and September 2000 against some of the decisions of the Cotton Supervisory Committee regarding implementation of the optional cotton marketing system. *While there is a vocal private sector and the overall thrust of the liberalization program cannot be reversed, GOE actions or inactions can greatly slow down the liberalization process.* Nearly total inaction on the privatization front over the past two years has definitely slowed down privatization. Continued allocation of seed cotton sales rings, as well as adherence to administered prices and the principle of one buyer per sales ring, has limited the extent of liberalization of seed cotton marketing. Lint cotton exports by private companies, as a percentage of total exports, declined sharply in 1999/2000 (from 25.4% in 1998/99 to 15.5%), as public trading companies continue to play the major role in seed cotton procurment. The private sector share in ginning also declined from a high of 39.6% in 1998/99 to 36.8% in 1999/2000.

Further success in cotton/textile subsector liberalization and privatization requires renewed commitment, not infra-marginal half-steps, to complete the process. The GOE laid a strong foundation during the 1990s, with support from APCP and APRP, and progress was significant by the end of the decade. Momentum has been lost at the beginning of the new decade, however, both declaring and implementing the program of policy and regulatory reforms recommended above should put the GOE back on the liberalization track and complete the reform process. The GOE and USAID have come a long way as partners in a difficult process; completing the process will lead to productivity and quality gains and improve the outlook and competitiveness of the leading agribusiness subsector in Egypt in the domestic and international markets.

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ANNEX 1

ANNEX TABLES

Table A1-1: Summary Characteristics of Surveyed Private Spinners, 1998/99

		Name of Firm	Location	Date Operational	Labor Force	Raw Material	1998/99 Output (mt yarn)	% Exported	Main Output	Other Ent.
Privatized Spinners	1	Arabia, United, and Bolivara Spinning (Unirab)	Alexandria	1996	5285	80, 83, 85, 75, 89	21,372	48.5	Ring yarn, NE 30-50 (some open-end)	W
	2	Alexandria Spinning & Weaving	Alexandria	1947	3473	75,85,80,86,70	12,357	20	Ring yarn, NE 30-50	
	3	Minya El Kamh Spinning Factory	Sharkia	1999	1400	80,83,75,86	7,566	0	Ring yarn, NE 30-50 & >50	
	4	DIP Egypt	Qalubia	1998	600	80,83,85,75	1,400	54	Ring yarn, NE < 30, 30-50, & >50	
	5	International Company for Import, Export & Weaving	Qalubia	1999	79	80,83,85,86	336	0	Open-end yarn, NE 10-16 & > 16	
Traditional Fowah Spinners	1	Wezza Industry and Trade	Fowah, Kafr El-Sheikh	1956	42	waste	38,818	0	Both blankets & Kilims	
	2	Al Fadali for Spinning & Weaving	Fowah, Kafr El-Sheikh	1985	29	waste	173	0	Coarse yarn for carpets	
	3	Al Bosat for Carpet & Spinning	Fowah, Kafr El-Sheikh	1986	36	waste	259	0	Both blankets & Kilims	
	4	Rashad Abu El Saad Factory	Fowah, Kafr El-Sheikh	1995	42	waste	259	0	2000/1-3000/1 Blankets	
	5	Al Habashi Abu Ahmed Factory	Fowah, Kafr El-Sheikh	1995	82	waste	388	0	Both Blankets & Kilims	
	6	Reda Hantira Co.	Fowah, Kafr El-Sheikh	1994	24	waste	173	0	Both Blankets & Kilims	
	7	Abdalla Hantira Co.	Fowah, Kafr El-Sheikh	1997	26	waste	173	0	Both Blankets & Kilims	
	8	Ali Basal Factory	Fowah, Kafr El-Sheikh	1992	78	waste	388	0	Both Blankets & Kilims	
	9	Al Liboudi Factory	Fowah, Kafr El-Sheikh	1995	38	waste	130	0	2000/1-3000/1Blankets	
	10	Mabrouk Karam Co.	Fowah, Kafr El-Sheikh	1995	40	waste	173	0	Both Blankets & Kilims	
	11	Wezza for Spinning	Fowah, Kafr El-Sheikh	1997	36	waste	130	0	Both Blankets & Kilims	W
	12	Startex	Fowah, Kafr El-Sheikh	1991	35	waste	173	0	Both Blankets & Kilims	
Twisters	1	Abdel Mona'em Mohamed Dowidar (Dowitex)	Dakahlia	1988	20	70,77	1,872	0	Ring yarn, NE30-50	
	2	10th of Ramadan Spinning & Weaving	10th of Ramadan	1984	90	80,83	5,400	20	Ring yarn, NE < 30	
	3	Al Maidani Spinning & Weaving	10th of Ramadan	1994	90	80,83	3,600	40	Ring yarn, NE 30-50	W
Private Ring Spinners	1	Alcan Mana'ai (Almatex)	Sadat City, Menoufia	1998	100	7077	156	100	Ring yarn, NE > 50	
	2	Giza Spinning, Weaving & RMG	Giza	1989	402	80,83,85,75,Sud.	2,028	0	Ring yarn, NE < 30, 30-50, & >50 (some	W,K, RMG
Open-end Spinners	1	Egyptian Spinning Co. (Spinco)	Alexandria	1982	150	waste	430	0	Open-end yarn, NE 6-10 & 10-16	
	2	Attalla Trading Company for Spinning	Alexandria	1991	170	waste	300	0	Open-end yarn, NE 6-10	
	3	Egyptian International for Investments	Alexandria	1988	70	waste	2,000	50	Open-end yarn, NE 6-10, 10-16, & >16	
	4	Mohamed Metwalli & Sons (Mosa'adtex)	El-Mehalla	1999	60	waste	900	0	Open-end yarn, NE > 16	
	5	Al Dawlia (International Company for Spinning)	El-Mehalla	1999	50	80,83	2,000	0	Open-end yarn, NE 6-10 & 10-16	
	6	Basioutex Industry & Trade	Qalubia	1997	40	80, 83	624	0	Open-end yarn, NE 6-10, 10-16, & >16	
	7	Egyptian Company for Cotton Spinning	Qalubia	1998	40	80,83,85,86	60	0	Open-end yarn, NE 6-10 & 10-16	
	8	Fagr Al Eslam Spinning & Weaving	6th Oct., Giza	1999	100	80,83	1,300	0	Open-end yarn, NE > 16	W
	9	Hassan Gaber Darwish Factory	Rashid, Beheira	1975	17	80,83, waste	96	0	Open-end yarn, NE 6-10	
	10	Wezza for Cotton Spinning	Fowah, Kafr El-Sheikh	1999	36	80,83,85,75	144	0	Open-end yarn, NE 6-10, 10-16, & > 16	
	11	Rosetex	10th of Ramadan	1999	105	80,83	1,872	0	Open-end yarn, NE 10-16 & >16	W
	12	10th of Ramadan Spinning & Weaving (Daymtex)	10th of Ramadan	1999	76	80,83	2,760	0	Open-end yarn, NE 10-16 & >16	W
	13	Shatex Spinning & Weaving	10th of Ramadan	1999	135	80,83	2,496	0	Open-end yarn, NE 10-16 & >16	W

Notes: 1) Raw material: Egyptian lint cotton varieties are all Gizas. Only the varietal number is shown.

2) Other enterprises: W = Weaving; K = Knitting; RMG = Ready-made garment production

Table A1-2: Spinning and Weaving Mills under Construction in El Obour Industrial Free Zone

Owner	Company	Activity	Legal Form	Registration Year
Abdel Latif Ghonima	Modern Maka for Weaving	S & W	Individual	1998
El Amir Mostafa Hassan	El Madina El Monawara for Weaving	S & W	.	1998
Mohamed A. Rahim El Morshedy	MORSHEDTEX	S & W	.	1997
Refki Mohamed Ahmed Zahran	ZAHRANTEX	S & W	Limited Partnership	1998
Mohamed Ezz EL Din M. A. Rahman	El Shark for Clothes and Tricot	S & W	.	1998
Mohamed Nabil M. Aly Serio	SUPERTEX	S & W	Limited Partnership	1996
Mohamed Fawzi Fansa	Benguine for Weaving	S & W	.	1998
Nabil A. Fatah Gharib Hadhoud	El Amal for Weaving	S & W	.	1998
Hisham Farouk A. Hamid Emara		S & W	.	1998
Saeid Aly Malek	Saeid Aly Malek Co.	S & W	.	1997
Abdel Rahman Zaki Masoud		S & W	.	1998
Santa Mora Egypt for Blankets		S & W	Stock Company	1999
Khaled Fekri Emara	FATEX Egyptian Co. for Weaving Industries	S & W	.	1998
Mohamed Salah El Din Hamed Sherif	Egypt - America for Clothes	W & RMG	.	1998
Salah Kamel Abdel Aal EL Akwah		W	Limited Partnership	1998
Mohamed Samir M. Rateb		W & P	.	1998
Hazem Saad Zaghloul	Egyptian Engineers Co.	S & W	.	1998
Mohamed Mohamed El Garaia	GRAITEX	S & W	Partnership	1998
Nashaat Zaki Hasab El Nabi		W	.	1998
El-Asria for Producing Threads		S & W	.	1998
Mohsen Mohamed Ahmed Harb	Harb Sons	Opening Cotton	Partnership	1999
Ossama Mohamed Mohamed Hassan		W	.	1999
Faiez Anwar Halbouny		S, W, & Tricot	Limited Partnership	1998

S = Spinning W = Weaving P = Printing RMG = Ready-made garments Tricot = Knitting

Table A1-3: Selected Characteristics of Privatized Spinners, 1998/99

Type of Ring Spinner	Spinners	Year Establ.	No. Spindles	No. Workers	Output (mt)	Value of Output ('000 L.E)	Mean Value (LE/mt)	Mean Mo. Wage	Total Lint Input (mt)	Value of Lint ('000 L.E)	Mean Value (LE/mt)	Other Input (mt)	Ratio of Output to Input
Majority	Unirab	1997	207,216	5,285	21,372	256,464	12,000	290	22,500	6,300	280	451	93.1%
Ownership	Alexandria	1997	147,000	3,473	12,357	167,187	13,530	280	14,977	4,368	292	0	82.5%
	Subtotal		354,216	8,758	33,729	423,651	12,560	285	37,477	10,668	285	451	90.0%
Leased Units	DIP Egypt	1998	53,148	600	1,400	16,380	11,700	350	5,460	27,846	5,100	0	25.6%
	Minya El Kamh	1999	78,240	1,400	7,656	68,904	9,000	225	8,325	42,458	5,100	387	87.9%
	El Alameyya	1999	500	79	336	3,360	10,000	275	180	918	5,100	270	74.7%
	Subtotal		131,888	2,079	9,392	88,644	9,438	263	13,965	126,000	5,244	657	64.2%
Total of Privatized Companies			**161,696**	**10,837**	**43,121**	**512,295**	**11,880**		**51,442**	**182,807**	**5,244**	**1,107**	**82.1%**

Notes: 1) The other input is polyester at Unirab and Minya El Kamh. Unirab produces mainly 100% cotton yarn, with 2% of its input being polyester. Minya El Kamh produces some 60% cotton/40% poly ring yarn. El Alameyya produces all 60% cotton/40% synthetic open-end yarn. The synthetic material includes polyester, acrylic and rayon.

2) The ratio of input to output was so low for DIP Egypt in 1998/99, because DIP bought large quantities of Giza 75, a leading LS variety last produced in 1997/98, which was being sold at a discount by the Holding Company in the fall of 1998. DIP did not spin all of this Giza 75 in 1998/99. It carried some Giza 75 over into 1999/2000. The large-volume purchase of Giza 75 was a saavy move to obtain significant stocks of a highly spinnable LS variety at at a reasonable price. By including the purchased Giza 75 stocks in the input figures, the output/input ratio is lowered for both the leased units and all privatized companies. Assuming, DIP Egypt used 1,760 mt of lint to produce 1,400 mt of yarn (and excluding the remaining 3,700 mt of Giza 75 from the calculations), the output/input ratio rises to 86.0% for the leased units and 90.9% for all the privatized companies.

Table A1-4: Selected Characteristics of Ring Yarn Spinners, 1998/99

Type of Ring Spinner	Spinners	Year Establ.	No. Spindles	No. Workers	Output (mt)	Value of Output ('000 L.E)	Mean Value (LE/mt)	Mean Mo. Wage	Total Lint Input (mt)	Value of Lint ('000 L.E)	Mean Value (LE/mt)	Other Input (mt)	Ratio of Output to Input
Twist Yarn Only	10th of Ramadan	1984	5,300	90	5,400	54,000	10,000	350	6,480	33,696	5,200	0	83.3%
	Dowitex	1988	2,580	20	1,872	17,784	9,500	300	2,250	16,875	7,500	0	83.2%
	Al Maidani	1994	4,300	90	3,600	36,000	10,000	350	4,350	22,620	5,200	0	82.8%
	Subtotal		12,180	200	10,872	107,784	9,914	345	13,080	73,191	5,596	0	83.1%
All Operations	Giza	1989	22,000	400	2,028	18,564	9,154	300	2,465	11,312	4,589	277	74.0%
	Alcan Mana'ai	1998	10,800	96	624	13,104	21,000	450	800	6,000	7,500	0	78.0%
	Subtotal		32,800	496	2,652	31,668	11,941	329	3,265	17,312	5,302	277	81.2%
TOTAL			**44,980**	**696**	**13,524**	**139,452**	**10,311**		**16,345**	**90,503**	**5,537**	**277**	**81.4%**

Notes: There may be double counting of the output of the spinners who twist yarn only with the output of Minya El Kamh. Only Giza S&W uses any synthetic material in producing 624 mt of 60% cotton/40% poly & acrylic yarn.

Table A1-5: Selected Characteristics of Open-end Spinners, 1998/99

Type of Open-end Spinner	Spinners	Year Establ.	No. Spindles	No. Workers	Output (mt)	Value of Output ('000 LE)	Mean Value (LE/mt)	Mean Mo. Wage	Total Lint Input (mt)	Value of Lint ('000 LE)	Other Input (mt)	Mean Value (LE/mt)	Ratio of Output to Input
Spin	Al Dawlia for Spinning Industry	1999	600	50	1,500	12,000	8,000	250	1,800	9,360	233	5,200	73.8%
Egyptian	Basioutex for Trading and Industry	1997	500	40	624	4,992	8,000	350	720	3,744	0	5,200	86.7%
Lint	Egyptian Co. for Cotton Spinning	1998	168	40	144	474	3,292	250	200	1,040	0	5,200	72.0%
	Wezza for Cotton Spinning	1998/99	312	36	144	1,152	8,000	350	180	731	61	4,060	59.8%
	Rosetex Textile	1998/99	7,500	350	1,872	14,976	8,000	350	1,140	5,814	1,140	5,100	82.1%
	10th of Ramadan (Daymtex)	1998/99	3,960	76	3,300	22,080	6,691	350	1,320	6,732	2,329	5,100	90.4%
	Shatex Spinning & Weaving	1998/99	10,000	135	2,496	19,968	8,000	350	780	3,978	1,941	5,100	91.7%
	Fagr El Eslam Spinning & Weaving	1999	1,120	100	3,120	24,960	8,000	350	4,320	21,600	2,737	5,000	57.0%
Subtotal			**24,160**	**827**	**13,200**	**100,602**	**7,621**		**10,460**	**52,999**	**8,445**	**5,067**	76.2%

Type of Open-end Spinner	Spinners	Year Establ.	No. Spindles	No. Workers	Output (mt)	Value of Output ('000 LE)	Mean Value (LE/mt)	Mean Mo. Wage	Total Waste Input (mt)	Value of Waste ('000 LE)	Other Input (mt)	Mean Value (LE/mt)	Ratio of Output to Input
Spin Waste	Attallah Trading for Spinning	1991	1,700	170	300	2,700	9,000	320	360	1,440	0	4,000	83.3%
	Egyptian Spinning Co. (SPINCO)	1982	840	150	430	3,225	7,500	190	600	2,100	0	3,500	71.7%
	Egyptian International Co. for	1988	1,120	70	2,000	16,800	8,400	410	2,400	6,000	0	2,500	83.3%
	Mosaadtex	1999	1,600	60	1,800	13,500	7,500	220	2,880	5,760	0	2,000	62.5%
	Hassan Darwish Factory	1975	166	17	96	480	5,000	350	60	195	60	3,250	80.0%
Subtotal			**5,426**	**467**	**4,626**	**36,705**	**7,935**		**6,300**	**15,495**	**60**	**2,460**	**72.7%**
TOTAL			**29,586**	**1,294**	**17,826**	**137,307**	**7,703**		**16,760**	**68,494**	**8,505**	**4,087**	**75.3%**

Notes: 1) One open-end spinner spins waste, as well as Egyptian lint cotton. 2) The conversion ratios seem low for two companies that spin both Egyptian cotton lint and polyester. This may be because the respondents did not specify final output coming from both lint and synthetic inputs. Or perhaps the synthetic input quantity is exaggerated.

3) The ratio of output to input is low for Wezza for Cotton Spinning and for Fagr El-Eslam Spinning & Weaving. This maybe because relatively high levels of other input use (synthetics & waste) was not accounted for in the reported output figures.

Table A1-6: Annual Output of Privatized Spinning Companies, 1998/99

Years	Unirab		Alexandria		DIP		Minya El-Kamh		Alamia		Total	
	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)
1989/90		0.0	11,612	90.7							11,612	90.7
1990/91		0.0	13,058	103.3							13,058	103.3
1991/92		0.0	12,800	120.6							12,800	120.6
1992/93		0.0	12,900	113.4							12,900	113.4
1993/94		0.0	12,738	125.0							12,738	125.0
1994/95		0.0	12,962	162.1							12,962	162.1
1995/96	18,336	220.0	11,873	158.7							30,209	378.7
1996/97	19,079	248.0	12,755	163.7							31,834	411.7
1997/98	20,978	272.7	13,662	179.3	1,400	16.4					36,040	468.4
1998/99	21,372	256.5	12,357	167.2	1,400	16.4	7,656	68.9	336	3.4	43,121	512.3
No. of Total Workers	5285		3473		600		1400		79		13102	

Years	Unirab		Alexandria		DIP		Minya El-Kamh		Alamia		Total	
	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)
1996	7,225	18,034	3,775	9,060	NA	NA	NA	NA	NA	NA	11,000	27,094
1997	6,977	18,754	3,734	9,858	NA	NA	NA	NA	NA	NA	10,711	28,612
1998	7,550	23,918	3,569	11,564	180	756	NA	NA	NA	NA	11,299	36,238
1999	7,550	26,274	3,473	11,669	600	2520	1,200	3,240	79	261	12,902	43,964

Table A1-7: Annual Output of Other Private Ring Spinners, 1998/99

Years	DOWITEX		10th of Ramadan for Spinning & Weaving		Al-Maidani for Spinning & Weaving		Alkan Manaai (ALMATEX)		Giza for Spinning & Weaving		Total	
	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)	Vol. (mt)	Value (mill. LE)
1989/90	312	1.4	1,080	4.3	0	0.0	0	0.0	312	2.0	1,704	7.8
1990/91	312	1.4	1,440	8.6	0	0.0	0	0.0	468	3.0	2,220	13.1
1991/92	312	1.4	1,440	10.1	0	0.0	0	0.0	624	4.2	2,376	15.7
1992/93	312	1.5	1,800	12.6	0	0.0	0	0.0	936	6.4	3,048	20.4
1993/94	312	1.5	1,800	14.4	0	0.0	0	0.0	1,092	7.6	3,204	23.5
1994/95	1,872	9.4	3,600	29.2	3,600	28.8	0	0.0	1,248	9.0	10,320	76.3
1995/96	1,872	11.2	3,600	29.3	3,600	28.8	0	0.0	1,404	10.5	10,476	79.9
1996/97	1,872	14.0	4,320	36.7	3,600	30.6	0	0.0	1,560	12.2	11,352	93.5
1997/98	1,872	16.3	4,320	38.9	3,600	32.4	0	0.0	1,716	13.7	11,508	101.3
1998/99	1,872	17.8	5,400	54.0	3,600	36.0	156	3.3	2,028	18.6	13,056	129.6
No. of Total Workers, '99	20		90		90		100		402		702	

Years	DOWITEX		10th of Ramadan for Spinning & Weaving		Al-Maidani for Spinning & Weaving		Alkan Manaai (ALMATEX)		Giza for Spinning & Weaving		Total	
	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments ('000 L.E)	# Workers	Annual Salary Payments
1996	20	60	45	135	70	210	0	0	347	300	482	705
1997	20	65	60	202	75	270	0	0	366	300	521	836
1998	20	70	75	270	80	298	0	0	384	300	559	937
1999	20	72	90	378	90	378	100	540	402	300	702	1668

ANNEX 2

Interview with Samir Riad[55]: Major Private Textile Industry Player Buys Privatized Companies but Remains a Skeptic about Policy Reform

Samir Riad is one of the biggest players in the textile industry in Egypt. He is the majority owner of KABO and Alex S&W. He owns four units at Tiba and at another location in Shoubra El Kheima, which do knitting, RMG production, and dyeing and finishing. People in the textile industry respect and listen to the views of Samir Riad. Policy-makers should also take heed.

Acquisition through Privatization. Riad is the majority owner of KABO and Alexandria S&W, two companies privatized in 1996/97 and 1997/98. Although world market conditions were not good for the yarn produced by Alexandria S&W in 1999/2000, Riad improved the productivity of this company. While it produced counts in the NE 20-24 range in 1998/99, counts averaged NE 34-35 in 1999/2000. In 1999/2000, Alexandria bought lint cotton, including Gizas 80, 75, 85, 86 and 70, only from private traders. Alex S&W has 147,000 spindles and can produce 47 mt of yarn/day. It sells half of its yarn output to KABO. It has 3,473 workers and no early retirement program. Riad believes that cost savings can be realized through other means, such as reducing waste in spinning. He thinks that (forced) early retirement programs have a negative impact on morale at a company.

Tiba Unit. This was part of a badly neglected public company, Cairo Silk. The Riad Group bought a Cairo Silk unit 15 years ago. The group basically bought land and buildings and no equipment. This became the Tiba unit of the Riad Group. About 18 months ago, the group also acquired a second unit of Cairo Silk, a plant that it renovated to produce RMGs and a training school. Riad is willing to invest in his workers.

Open-end Spinning. OE spinning doesn't make sense in Egypt, especially using high-quality Egyptian cotton as an input. OE yarn should be spun from waste or poor quality lint, upgrading grade D raw material to a grade C product.

Ring Yarn Spinning. Egypt has approximately three million spindles, most of which are owned by public sector companies. Public mills produce too many different counts, failing to specialize. The private sector cannot invest in ring spinning, as the GOE still controls the crop. If the subsector were truly liberalized, there would be private investment in spinning.

Comments on Egyptian Labor Force and Management. Egyptian workers are among the best in the world, but Egyptian management is among the worst. Public companies (and agencies) compartmentalize people. Managers of these units try to build up large staffs as fiefdoms; there is no incentive to shed staff to be more efficient. The spinning industry needs "all-around players," not narrow specialists who don't cooperate with each other.

Managing the Egyptian Textile Industry in the Global Market. Many Egyptian manufacturers live in the past and don't update themselves in the era of globalization. They tend to apply lessons they

[55] This interview was conducted in late May 2000.

learned from 5 or 10 years ago. Egypt needs well-rounded managers who can first understand changing world markets, how to position Egyptian cottons in different markets, analyze continually Egypt's competitive position, and price their product to penetrate world markets. There is a tendency for Egyptian firms to increase prices when demand is strong. This is foolish and can lead to loss of market share.

Modern industrial production requires rationalization, minimizing costs, and producing good quality products. Firms that do not adjust will exit the industry. Inferior quality is not acceptable anywhere anymore. Firms need to focus on meeting specifications in both the domestic and export markets. Testing at different stages of the production process is key to providing tight quality control.

Anyone who can't make money spinning medium to high counts in Egypt is not a good manager. A lot of public spinners don't make money, because they spin too many counts and don't specialize in particular medium to high counts in which they can make money.

Imported Cotton Yarn. He imports Indian yarn from short-staple cotton that is consistently good and suitable for his production at Tiba, which requires about 15 mt/day. It has relatively high mineral content. Egyptian carded cotton is as good as combed Indian cotton. The preparation of Indian cotton is very good, so there are few impurities. The Indians test a lot. Their mixing and cleaning operations are very accurate. The preparation departments in Egyptian spinning mills are small and inadequate, reflecting how little attention is paid to cleaning in Egypt.

Pakistani yarn is not as good as Indian yarn, though it is spun from homogeneous short-staple cotton. Pakistani cotton is good for counts up to 24; Indian cotton is better suited to 30s count yarn. Egyptian yarn has better strength and softness. Egyptian cotton should be spun to counts 40 and up; below NE 40, you lose money.

Comments on Cotton Grown in Egypt. Giza 75 was "THE cotton." Why did the GOE stop producing it? This was folly; there was no industry input into this decision.

Farmers were hurt for many years by forced cropping patterns, compulsory deliveries, and low fixed farmgate prices, so they use "every trick in the book" to maximize earnings while providing low-quality product. Raw cotton in Egypt needs to be improved.

Riad opposes cultivation of hirsutum in Egypt. "Don't cultivate inferior cotton!" he pleads. He recommends importing short-staple cotton and growing ELS and LS in Egypt for export. There is a glut of short-staple cotton on the world market, so why produce more? Prices are low, so import shorter-staple cotton. Syria has an excess supply of lint. Egypt should import as much Syrian cotton as it can. Import restrictions need to be removed and import of short-staple lint facilitated, especially with a short crop coming in 2000/01.

Giza 70 must be combed due to the non-homogeneity of fibers. Giza 70 has the best touch and feel of any cotton in the world. Egyptian cotton yarn generally runs well on high-speed looms found in many factories in industrial countries. Weavers will pay a premium for high-quality Egyptian yarn (of counts 30 and up), because it increases the productivity of their looms and minimizes replacement costs for

expensive components of looms (smoothness of Egyptian yarn leads to less wear and tear on machinery).

Prospects for Future Privatization. Shebin was not privatized in 1999, mainly because it has too many workers (6500). No one wants to buy into this problem, typical of the public sector spinning companies. Ginning overcapacity will continue to be a problem, as the cotton crop shrinks. Many of the gins should be closed and the land sold.

Early Retirement Programs. Despite the obvious redundant labor in public sector textile companies, Riad does not believe in early retirement programs. The best people leave. It is better to retrain workers who are redundant and redeploy them elsewhere in the company. Attrition will lead to shrinkage of the labor force over time. Riad wants stability in the factory in order to build worker loyalty and a sense of belonging. Forced retirement leads to alienation of remaining workers.

KABO actually hired 1000 female workers for sewing. He needed a worker per machine, which he did not have when he acquired majority ownership. He even has moved female workers from administration to sewing. Wastage has dropped significantly in three years of private sector management at KABO. This is a better way to save money than to lay off workers.